DOCUMENT RESUME

ED 131 332 CE 009 056

AUTHOR	Junge, Catherine
TITLE	Development of Instructional Module Orientation to the Health Care Delivery System. Final Report.
INSTITUTION	Texas Woman's Univ., Denton.
SPONS AGENCY	Texas Education Agency, Austin. Div. of Occupational Research and Development.
REPORT NO	VT-103-388
PUB DATE	30 Jun 75
CONTRACT	42309930; 52340105
NOTE	318p.
EDRS PRICE	MF-$0.83 HC-$16.73 Plus Postage.
DESCRIPTORS	Audiovisual Instruction; Behavioral Objectives; *Curriculum Development; Curriculum Guides; *Experimental Curriculum; *Health Occupations Education; *Instructional Materials; Multimedia Instruction; Posttesting; Pretests; Secondary Education; Teaching Guides; Transparencies; Vocational Education
IDENTIFIERS	Texas

ABSTRACT

In an effort to fill a need for validated instructional materials in secondary vocational health occupations education, an experimental instructional module was developed based on behavioral objectives identified by teacher coordinators in Texas Health Occupations Cooperative Training (HOCT) programs. The module was then pilot tested with students in these programs. The project report section includes needs analysis, discussion of related literature and research, project methods and procedures, data analysis and findings, and conclusions. Over half of the document consists of appendixes which include a description of the experimental module and copies of the three products developed: Teacher Implementation Plan, Student Record Book, and assessment instruments. Designed for use by a group of students with the instructor acting as a facilitator and resource person, the module is divided into eight teaching units. Topics include health care facilities, a history of health care, agency organization, health care personnel, and major health problems. For seven of the units, the teacher implementation plan includes transparency masters and a script for a slide-tape presentation. The Student Record Book includes information sheets, vocabulary list, and study questions for each unit. Pretests and posttests for each unit, along with a scoring key, comprise the assessment instruments. The document includes project forms and a bibliography. (Author/RG)

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ED131332

FINAL REPORT

DEVELOPMENT OF INSTRUCTIONAL MODULE ORIENTATION TO THE HEALTH CARE DELIVERY SYSTEM

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Developer

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Developed For

DIVISION OF OCCUPATIONAL RESEARCH AND DEVELOPMENT

DEPARTMENT OF OCCUPATIONAL EDUCATION AND TECHNOLOGY

TEXAS EDUCATION AGENCY

JUNE 30, 1975

RESEARCH PROJECT #52340105

VT-103-388

CE 009 056

ACKNOWLEDGMENTS

Many persons have been involved in the production of this module. The rationale, objectives, learning alternatives, and references cited represent the cumulative efforts of Health Occupations Cooperative Training (HOCT) coordinators, Health Occupations Education (HOE) instructors, a career consultant, educational consultants, and health occupations education consultants.

The basic design for the module was first developed by a group of HOCT coordinators during a Curriculum Development workshop for HOE programs in Houston in 1973 led by Wilford A. Webber, Ed.D., College of Education, University of Houston. At this workshop the group developed the rationale, objectives, learning alternatives, and recommended references for the module. One year later, this same group of coordinators met together for another work session during the 1974 HOE In-service Workshop in Fort Worth, again led by Dr. Webber. At this time the instructional media was produced for Unit 4, "Health Care Personnel." Participating in this group were: Georgia Jordan, Mary Francis, Janet Hayes, Patricia Manley, and Grace Wilson.

Further development of the objectives and learning alternatives for the other seven units of the module were carried out during a special three-day workshop held at the Texas Woman's University in August, 1974. This workshop was jointly funded by the Texas Education Agency and the Texas Woman's University. At this time, Robert Claussen, Instructor in Media Production, Tarrant County Junior College; Cynthia Clements, graduate student in library science; and Betty James, artist, contributed their special talents to the production of instructional media for the module. Georgia Jordan and Beverly Crenshaw participated in the production during the course of the workshop and Jean LaDue participated, at a later date, in the production of Unit 7 and Unit 8.

Recording of the audio portion of the slide-tape segments of the module was skillfully done by Marion James and Vickie Washington, students of speech and drama at the Texas Woman's University.

Consultation and guidance was also received from the following members of the faculty at the Texas Woman's University: Dr. Margaret Harty, Dr. Irene Ramey, Dr. Basil Hamilton, Dr. Joseph L. Fearing, Dr. Alfonso Nicosia, Dr. Thornton A. Klos, Dr. Linda Keeling, and Dr. Barbara J. Cramer.

Other HOCT coordinators in Texas participated in the evaluation of the module. Ten coordinators participated in a pilot study and seventy-six coordinators evaluated the objectives of the module by responding to a questionnaire.

Funding for development and reproduction of the module was made possible through contracts #42309930 and #52340105 (revised) through The Institute of Health Sciences of the Texas Woman's University with the Division of Occupational Research and Development, Department of Occupational Education and Technology, Texas Education Agency.

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CHAPTER I

INTRODUCTION

Need for the Study

The development of curriculum material for health occupations education has not kept pace with program development. Curriculum writers have been unable to keep up, much less anticipate, the needs of students and instructors in health occupations programs. With health occupations education expanding since the 1950's into all levels of vocational and technical post-secondary preparations and since the 1960's into the secondary or high school programs, has come increasing demands for curriculum material suitable for these technical and vocational programs. For example, in Texas, secondary health occupations programs alone have expanded from less than ten programs in 1965 to over one hundred programs in 1974-75. In 1973 there was no comprehensive curriculum or course of study for secondary Health Occupations Cooperative Training (HOCT) programs in Texas.

Thus, in contrast to well established educational programs such as science and mathematics, where a well-defined course of study is more likely to be available to teachers, no such material is available to HOCT teachers. In an effort to remedy this situation, HOCT teacher-coordinators in Texas were involved in curriculum development activities during 1973 and 1974. During two summer in-service workshops, these teacher-coordinators developed the behavioral objectives and learning alternatives for nine instructional modules related to health occupations education. This present study was concerned with the completion of one of these nine modules, originally titled "Health Care Facilities." This study was a continuation of the program of curriculum development described above. However, the task has not been completed. There continues to be a need for a well-developed, comprehensive course of study for secondary health occupations education programs in Texas.

Purpose of the Study

The primary purpose of this study was to produce and validate an instructional module, Orientation to the Health Care Delivery System. This module would become an integral part of the curriculum for HOCT programs in Texas.

Description of the Study

This study was conducted to validate an instructional module, Orientation to the Health Care Delivery System, developed for secondary HOCT programs in Texas. Involved in the study were ten intact HOCT programs containing ten teacher-coordinators and 309 students. Using random selection, five programs were placed in the experimental group and five in the control group. Students in the experimental group were taught by their regular teacher using the experimental module before taking the posttest. Students in the control group were given the posttest only.

Based on the foundation laid earlier by HOCT teacher-coordinators, a group of subject specialists and audio-visual consultants met for a three-day Module Development Workshop during August 12-14, 1974, to further the production of the module. Funding for development and reproduction of the module was provided by a research grant sponsored jointly by the Institute of Health Sciences of the Texas Woman's University and the Division of Occupational Research and Development, Department of Occupational Education and Technology, Texas Education Agency.

Research Design

The research design used to test the effectiveness of the module was the Posttest-Only Control Group Design. Experimental and control groups of intact classes were selected from the one hundred classes of students enrolled in HOCT programs in Texas in 1974-75 by using a table of random numbers. Both groups were administered the posttest.

Only the experimental group was given the pretest in order to have a basis for calculating true-gain scores of students in the experimental groups. Pretest and posttest scores were determined by counting the number of correct answers on the answer sheets and using these raw scores.

Module Content

The original module, titled "Health Care Facilities," was expanded by the workshop participants to include information on health care organizations and health care personnel and material on the attitudes of health care workers. At this time the title of the module was changed to Orientation to the Health Care Delivery System to afford a better description of the modules' instructional content. The module was divided into eight units, and the following elements were developed for each unit: (1) prerequisite capability; (2) rationale; (3) objectives; (4) pre-assessment; (5) learning alternatives; (6) references; (7) equipment, supplies, and materials; (8) enrichment activities; (9) post-assessment; and (10) remediation. A set of overhead transparencies was developed for seven of the units. In addition, a 35-millimeter slide and audio tape cassette presentation was developed for six of the eight units. Credit was given in the introduction to each slide-tape presentation to the persons contributing to the development of each unit.

The final text of the module was written by the investigator in consultation with subject and curriculum specialists. Similarly, the pretest, posttest, and module evaluation instruments were written by the investigator in consultation with curriculum development specialists.

Cognitive Style

In order to determine if cognitive style was related to the effectiveness of module usage, a test of the cognitive style, field-dependence-independence, of teachers and students participating in the study was used. Cognitive style was determined by using the Group Embedded Figures Test developed by Herman A. Witkin and his associates. Due to a limit on the available funds and the cost of the test ($.75 per subject), the test was administered to a randomly selected thirty-three percent sample of the students in the experimental and control groups. However, all teachers were administered the test. Counselors at the local high schools selected the students who took the cognitive style test by taking every third name as it appeared on the current Grade Book of the HOCT teacher. All tests, both to teachers and students, were administered by the local high school counselors.

Limitations of the Study

The findings of this study were limited in the following ways:

1. The population utilized were students enrolled in HOCT programs in Texas.
2. The material in the experimental module had not been previously tested.
3. The questions on the pretest and the posttest had not been previously used.

Hypotheses

The principal focus of the present study was to develop and validate an instructional module prepared for health occupations education programs in Texas. The assumption was made that posttest scores of students using the experimental module Orientation to the Health Care Delivery System would be significantly higher statistically than the posttest scores of students taught the same material in a more traditional manner. The hypotheses describe various aspects of the study. The following null hypotheses were tested at the $p < .05$ level:

1. There is no significant difference between the affect on students learning achievement produced by use of the experimental module versus not using the experimental module.

2. There is no significant difference between the level of learning achievement produced by the student's experience or lack of experience in on-the-job training in a health occupation.
3. There is no significant difference between the level of learning achievement in a classroom with a teacher having no previous experience in an HOCT program versus learning achievement in a classroom with an experienced teacher.
4. There is no interaction of factors affecting the level of learning achievement produced by students using both the experimental module and having on-the-job experience in a health occupation.
5. There is no interaction between factors affecting the level of learning achievement produced by students using both the experimental module and taught by teachers having previous experience teaching in an HOCT program.
6. There is no interaction between factors affecting the level of learning achievement produced by students having on-the-job training in a health occupation and being taught by teachers having previous experience teaching in an HOCT program.
7. There is no interaction among factors affecting the level of learning achievement produced by students using the experimental module, having on-the-job training in a

health occupation and being taught by teachers having previous experience teaching in an HOCT program.

8. There is no significant difference between the level of learning achievement produced by students whose cognitive style, field-dependence-independence, differs from that of the teacher, as determined by the scores on the Group Embedded Figures Test.
9. There is no significant difference between the level of learning achievement produced by students having a different cognitive style, field-dependent or field-independent, as determined by scores on the Group Embedded Figures Test.

Summary

This chapter has set the stage for this study by demonstrating the following points:

1. This study is needed to provide a well-developed curriculum unit for secondary health occupations education programs in Texas.
2. The purpose of this study was to produce a validated instructional module.
3. The study included production of the instructional module Orientation to the Health Care Delivery System by participants in a Module Development Workshop; pilot

testing using Texas HOCT programs; and consideration of other factors in the analysis, student on-the-job experience, teacher experience in HOCT, and cognitive style.

4. The study was limited by the restricted population, a previously untested instructional unit, and previously untested evaluation instruments.

A flow chart (Figure 1) describes the course of the research study. The next chapter contains background literature related to the study.

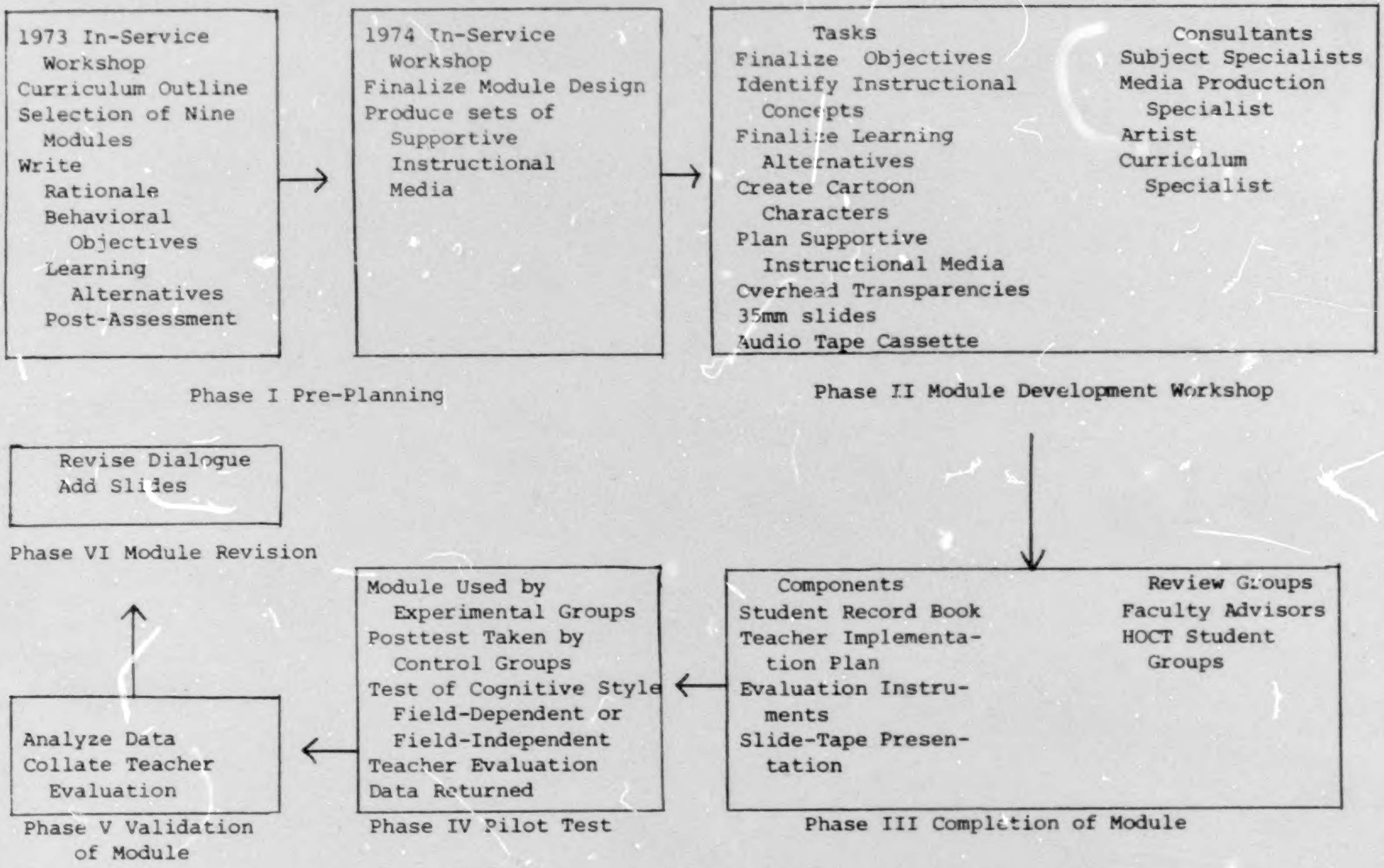
1973 In-Service Workshop
Curriculum Outline
Selection of Nine Modules
Write
Rationale
Behavioral Objectives
Learning Alternatives
Post-Assessment
1974 In-Service Workshop
Finalize Module Design
Produce sets of Supportive Instructional Media
Phase I Pre-Planning
Tasks
Finalize Objectives
Identify Instructional Concepts
Finalize Learning Alternatives
Create Cartoon Characters
Plan Supportive Instructional Media
Overhead Transparencies
35mm slides
Audio Tape Cassette
Consultants
Subject Specialists
Media Production Specialist
Artist
Curriculum Specialist
Phase II Module Development Workshop
Components
Student Record Book
Teacher Implementation Plan
Evaluation Instruments
Slide-Tape Presentation
Review Groups
Faculty Advisors
HOCT Student Groups
Phase III Completion of Module
Module Used by Experimental Groups
Posttest Taken by Control Groups
Test of Cognitive Style
Field-Dependent or
Field-Independent
Teacher Evaluation
Data Returned
Phase IV Pilot Test
Analyze Data
Collate Teacher Evaluation
Phase V Validation of Module
Revise Dialogue
Add Slides
Phase VI Module Revision

Fig. 1. Flow chart of instructional module development Orientation to the Health Care Delivery System

CHAPTER II

RELATED LITERATURE

A review was made of the literature in the subject areas related to the development of instructional material in secondary health occupations education programs and in the methods of evaluation used in this study. Subjects considered pertinent to this project were career education, health occupations education, curriculum development in vocational health occupations education, behavioral objectives in education, the health care delivery system, and cognitive style, as a factor in student achievement when utilizing the module. The results of this review are detailed in the remainder of this chapter.

Career Education

The past five years have seen the emergence of a different concept in education--career education. Career education is defined as "the totality of experiences through which one learns about and prepares to engage in work as part of her or his way of living."[1] This concept has many implications for curriculum development in health occupations education. When fully implemented, career education will become the larger concept of which health occupations education is a component part.

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[1] Terrel H. Bell and K. G. Hoyt, Career Education: The USOE Perspective, Occasional Paper 4 (Columbus, Ohio: The Ohio State University, 1974), p. 9.

Criticism of the Educational System

Career education is not completely new but has been given new emphasis in response to criticism of the present educational system. Dr. Sidney P. Marland, Jr., United States Commissioner of Education in 1971, stated:

> All education is career education--or should be. I purpose that a universal goal of American education starting now, be this--that every young person completing his school program at grade 12 be ready to enter either higher education or useful and rewarding employment . . . the ultimate test of our educational process, on any level, is how close it comes to preparing our people to be alive and active with their hearts and their minds, and, for many, their hands as well.[1]

The United States Commissioner of Education in 1974, Dr. Terrel H. Bell, reiterated these beliefs of Dr. Marland:

> Career education is the most viable vehicle for needed educational reform for the entire system of American education that has come along in many, many years. It has been forged from local needs and been built with knowledge coupled with practical experience. Career education is a winner.[2]

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[1] Sidney P. Marland, Jr., "Career Education," Today's Education, October, 1971, p. 22.

[2] Bell and Hoyt, Career Education, p. 2.

As noted by Dr. Marland and Dr. Bell, career education has developed in response to calls for educational reform. This concept represents one of several possible responses being given to the call for reform.[1] In the past, American education has been criticized from many quarters with the principal complainants insisting that American youth were not receiving a relevant education:

> . . . too many were deficient in basic academic skills required for adaptability in today's rapidly changing society; too many students fail to see meaningful relationships between what they are being asked to learn in school and what they will do when they leave the educational system; American education has not kept pace with the rapidity of change in the post-industrial occupational society; and, too many persons leave our educational system at both the secondary and collegiate levels unequipped with the vocational skills necessary for work in these times.[2]

Any large scale remedy proposed to answer these criticisms must contain an element common to each critical charge. This remedy must also provide for the needs of the individual and meet the critical demands of society. K. B. Hoyt, Associate Commissioner, Office of Career Education, United States Office of Education, states that the concept of "work" answers this need:

> . . . [work is] defined as activities aimed at producing benefits for oneself and/or for oneself and others. . . . The concept of work accommodates the

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[1] Bell and Hoyt, Career Education, p. 3.

[2] Ibid., p. 4.

> productivity goals of society in ways that emphasize the humanizing goals of American education. It is this quality that lends credence to career education as a vehicle for educational reform. . . . "career education" is the totality of experiences through which one learns about and prepares to engage in work as part of her or his way of living.[1]

Thus, career education, encompassing the concept of education for living and education for making a living, is seen as a viable response to the call for reform of the educational system.

Assumptions of Career Education

Certain basic assumptions have been embraced by the career education movement that have implications for curriculum development in health occupations education. Career education is designed for all persons from kindergarten through graduate school, with objectives designed to help individuals develop a desire to work, to acquire the skills necessary for work, and to engage in work offering individual satisfaction and benefit for society. The individual should have the freedom to choose his career with the knowledge needed to make and carry out this career decision. Curricula in health occupations education should provide the student with not only occupational skills but also with information about the environment, requirements, and opportunities inherent in various health occupations careers.

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[1] Bell and Hoyt, Career Education, p. 8.

As the result of research and pilot testing in career education, certain assumptions are made about career education programs. It appears that students are motivated to learn more when they can see a clear relationship between what they are taught in school and what will be required of them in the world of work. Research has shown that no single learning method is best for all students. Some students learn best by reading; others learn by combining reading with other activities. Therefore a comprehensive educational program should provide a series of alternative learning strategies and learning environments for students. Further, all persons who choose to work in today's rapidly changing occupational society need certain adaptability tools, including basic academic skills, a personally meaningful set of work values, and good work habits.[1] There exists a definite positive relationship between education and success on the job; however, the optimum amount and type of education varies from one occupation to another. Individuals can discover both who they are (as an individual) and why they are (in an awareness sense) through a successful work experience. While economic return certainly is a large factor in making a decision on an occupation, other important factors enter into this decision.[2] Curricula in health occupations education should include information about working conditions and emotional rewards, as well as economic rewards.

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[1] Ibid.

[2] Ibid., p. 13.

Changes Needed in Education

Certain basic changes in American education must take place before reform is brought about. Performance evaluation must be substituted for the strict item requirements of the Carnegie unit, as a means of evaluating educational programs.[1] Also a system for granting students credit for learning that takes place outside the walls of the school must be instituted. In addition, teachers and programs must have the flexibility to choose the educational strategies and materials most effective in increasing student achievement.[2] These changes can and should be incorporated into programs of health occupations education.

Groups Offering Guidance

In Texas several groups have offered counsel and guidance for integrating career education and health occupations education. These include the Advisory Council for Technical-Vocational Education in Texas, the Texas Health Careers Education Council, and local HOCT teacher-coordinators.

The Advisory Council for Technical-Vocational Education in 1973 stated:

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[1] Ibid., p. 11.

[2] Ibid., p. 12.

> . . . to effectively implement such a plan [career education], first of all will require an understanding of what is involved and secondly, a commitment to the concept to more effectively serve all the needs of all citizens in all communities.[1]

The council recommended a career education model beginning in kindergarten with career awareness at the K-6 level; career exploration, orientation and investigation at the 7-10th grade level; and career preparation at the 11-12th grade level. Through these programs, the students of public education in Texas will be better prepared to meet the challenges of their future in this complex world of steel, wires, paperwork, and people of today.[2]

The Texas Health Careers Education Council is another organization concerned with the implementation of career education in Texas, specifically in the health occupations area. The Council members see their role as advisory to educators in Texas in finding the best way to integrate health career information into general curricula. The Council also stands ready to advise educators as to the competencies required for different careers and the best techniques for obtaining these competencies.[3]

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[1] A Redirected Education System--A Plan for Action, Third Annual Report, Advisory Council for Technical-Vocational Education in Texas (Austin: Advisory Council for Technical-Vocational Education in Texas, 1973), p. 4.

[2] Ibid., p. 1.

[3] John Haddad, "Career Education," Texas Health Careers Program, 9 (Spring 1975).

Career education is being linked with vocational health occupations education at the local level by the HOCT teacher-coordinators in the local high schools. These coordinators cooperate with teachers of academic subjects by supplying information regarding health careers for students in elementary and junior or middle schools. Coordinators also encourage students enrolled in HOCT programs to share information regarding these programs and the requirements for a career in health occupations with younger students.

In summary, career education is a dynamic concept linking education for living with education for making a living. Vocational health occupations programs are a strong link in this program, bridging the gap between a student's orientation to a health career and his full-time career as a health professional or health technician. Therefore, health occupations instructional material must serve as the vehicle by which students move vertically and horizonally within the health care field.

Health Occupations Education

The rapid changes in the scope and philosophy of education occurring during the past decade are evident in health occupations education. One reason for these changes is the rapid expansion in all areas of allied health occupations. Current indications are that there will be continued growth.[1] Primarily, this growth has occurred in post-secondary institutions and in public and private adult health occupations programs. This expansion has been supplemented in the late 1960's and early 1970's by the extension of health occupations programs into the secondary schools. These have taken the form of exploratory health careers education; health cluster (job family) programs, cooperative education programs in health, and other innovative curriculum designs.[2]

The transition period in health occupations education began in the 1950's. Traditionally, the education of health care personnel has been by one of three methods: professional education; training programs in health service institutions, combining classroom study with health care service; and on-the-job training. Beginning with the development of practical (vocational) nursing programs in the 1950's, many technical and vocational health careers have evolved. This development was traced by Holloway and Kerr in 1969:

> As the practical nurse proved her worth as a supportive worker, the question arose whether other health fields might make use of non-professional

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[1] Teacher Education For Allied Health Occupations: Toward Competency-Based Programs, Final Report, Mary Milliken, Project Director (Athens, Georgia: University of Georgia, 1973), p. 1.

[2] Ibid., p. 1.

> assistants and technicians. . . . Widespread acceptance of non-professional auxiliary workers in the health field has been generally slow, but several professional groups have moved in this direction and others are beginning to do so.[1]

Since the 1950's, technical and vocational programs have developed in many areas, including medical laboratory technology, associate degree nursing, physical therapy assistant, radiologic technology, and respiratory therapy technology.

Another apparent trend in health occupations education is the shifting of educational programs from service institutions (hospitals, clinics, or other health service agencies) to area or regional educational institutions. This trend has pointed up the need to explore commonalties in the various health occupations sections and programs and to identify a core curriculum. Use of a core curriculum serves two purposes: it makes the most efficient use of instructors, laboratories, and teaching materials, and it gives the student an opportunity to gain insight into several occupational areas with the option of changing from one specific area of study to another without losing credit for classroom work successfully completed. These trends call for a concentrated effort on the part of health occupations educators to develop valid and reliable curricula for these technical programs.

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[1] Lewis D. Holloway and Elizabeth E. Kerr, Review and Synthesis of Research in Health Occupations Education, ERIC Clearinghouse (Columbus, Ohio: Ohio State University, 1969), p. 5.

In Texas the growth of secondary health occupations programs has increased since 1965 when the first heterogeneous programs of Health Occupations Cooperative Training (HOCT) were developed and experienced health professionals were employed as teacher-coordinators.[1] By the school year 1974-75, one hundred and nine health occupations programs in high schools geographically distributed throughout the state were approved by the Texas Education Agency. Ninety-five percent of these programs are cooperative programs, providing students with actual employment experience, as well as related didactic instruction. Objectives of these HOCT programs are stated in the *Handbook For Teacher-Coordinators, Health Occupations Cooperative Training*:

> [1] Provide effective, economical vocational training
> [2] Prepare students for employment entry on assistant or supportive level
> [3] Create and stimulate students' interests in additional preparation, education, and experience leading to advancement in health careers
> [4] Guide students who desire to become qualified employees with advancement potentials
> [5] Provide students an introduction to responsibilities of employment

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[1] *Handbook For Teacher-Coordinators, Health Occupations Cooperative Training* (Austin: Texas Education Agency, 1970), p. 2.

> [6] Provide students an opportunity for development of understanding, tact, and assurance in interpersonal relationships.[1]

The growth and development of these secondary health occupations programs in Texas have followed the rapid expansion of allied health programs at the technical and vocational level. In addition, the movement of health occupations programs from service into educational institutions has emphasized the need for curriculum development in health occupations education.

Curriculum Development in Vocational Health Occupations

The trend toward moving the basic instruction for health occupations aides, assistants, and technicians into secondary education highlights the need for curriculum development. Helen Powers, Program Officer, Health Occupations Education, United States Office of Education in 1973, made certain recommendations regarding health occupations education instructional material:

> Revision and development of new curriculums are desperately needed. The proliferation of new materials coming from publishers is indicative of this need. . . . Curriculum development is usually done by the "round-table method"--talking about what is needed. This material (derived from these discussions) is not field-tested. . . . We should have the material built around behavioral objectives teachers have identified. We can't expose

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[1] Ibid., p. 3.

> students to out-dated or less-than-adequate materials that do not prepare them for the expected work performance.[1]

Several individuals and groups have produced instructional material according to the guidelines outlined by Helen Powers.

Recent projects and pilot programs have resulted in production of instructional materials for secondary health occupations programs. One was a pilot program developed by Joy Hill in 1969, in which she produced a packet of instructional material designed for teaching in high school health occupations programs.[2] A second project was developed at the University of California at Los Angeles, the Allied Health Professions Project. This involved a national curriculum research and development program funded by the United States Office of Education and included a segment on secondary health occupations. A number of textbooks and study materials resulted from this project.[3] The major portion of this material is related to skill development in specific health occupations areas.

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[1] Helen K. Powers, "Potential Scope of the Allied Health Occupations Education Programs," Proceedings: Conference on Administrative Planning for Allied Health Occupations (Athens, Georgia: University of Georgia, College of Education, 1973), p. 60.

[2] Joy E. Hill, Organization and Teaching High School Health Occupations Programs (Lexington, Kentucky: University of Kentucky, 1971), p. 2.

[3] Allied Health Occupations Instructional Materials (Santa Monica, California: University of California, Los Angeles, 1974).

Harold R. Rowe and the Rocky Mountain Educational Laboratory produced a third project entitled A Health Career Development Program For the Rural High School. Other studies are listed in Interpretation of Literature on Career Ladders and Lattices in Health Occupations Education.[1] These studies and pilot programs indicate a trend toward the development of secondary health occupations programs and emphasize the need for the development of dynamic and innovative instructional modules.

The type of instructional material needed for secondary health occupations programs is governed by the plan of instruction. Classroom instruction for the HOCT programs in Texas is divided into two basic areas: (1) general occupationally related material, designed to assist the student in meeting his occupational, civic, and social responsibilities; and (2) specifically related health occupations material, designed to introduce the student to employment in a health occupation. Included in the latter section are subjects common to several health occupations, including body structure and function, aseptic technics, medical ethics, and basic principles in understanding human behavior. There are few instructional units for secondary students on medical ethics and understanding human behavior.

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[1] Jean Kirtgen, Interpretation of Literature on Career Ladders and Lattices in Health Occupations Education (Columbus, Ohio: ERIC Clearinghouse, Ohio State University, 1969).

Joy Hill noted this need for teaching material concerned with understanding human relationships. She referred to such areas as relationships between the aide or assistant and her fellow workers, as well as relationships with those persons in need of health care served by the assistant.

> The manner in which individual health workers relate to the patient, other members of the team, and visitors sets the stage for the kind and quality of care. . . . At the present time instructors responsible for teaching in-service programs for new employees in hospitals or other health facilities, or instructors who teach the orientation courses in the secondary or post-secondary vocational school's health occupations programs are faced with a scarcity of teaching materials designed for teaching this phase of the program.[1]

The few instructional units in this area do not involve the newer methods of incorporating audio-visual material into the basic plan of instruction. There is also a need for individually paced instructional units on medical ethics and human relationships.

Several individuals and groups have made recommendations as to the best way for these instructional materials to be produced. Recommendations have been made by

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[1] Hill, Organization and Teaching, p. 2.

Helen Powers,[1] Lewis Holloway, and Elizabeth Kerr; and groups such as the Advisory Council for Technical-Vocational Education in Texas and the Handbook for Teacher-Coordinator, Health Occupations Cooperative Training. The Handbook lists as desirable personal characteristics of the coordinator ". . . ingenuity in developing new study materials and keeping abreast of all current trends in health occupations education."[2] The Advisory Council recommends that

> . . . provisions be made for utilization of occupations personnel and facilities for career information, orientation, and exploration when such utilization will not adversely affect the quality of occupational programs.[3]

Among the recommendations made by Holloway and Kerr are

> [1] that colleges and universities be encouraged to develop programs to prepare personnel to serve as teachers, researchers, and to provide the leadership for health occupations education;
>
> [2] that more health occupations education personnel be prepared and encouraged to use new approaches to education, e.g., student-centered teaching, auto-tutorial methods, and computer assisted instruction;
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> [3] that there be informal classroom experimentation to test the new ideas which result from the conduct of research studies;
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> [4] that ways be devised to increase coordination and cooperation between vocational-technical education and the health professions,

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[1] Powers, "Scope of Allied Health Education," p. 60.

[2] Handbook for Teacher-Coordinators, p. 4.

[3] A Redirected System, p. 9.

> professional schools, health oriented associations, and health agencies in order to arrive at workable solutions to concerns related to the field of health occupations education.[1]

These individuals and agencies recommend that (1) instructors in the local health occupations programs be involved in the development of curriculum material; (2) that these local instructors have the assistance and support of colleges and universities in health science education and of health professionals, associations, and agencies; (3) that the instructional material be built around behavioral objectives identified by health occupations instructors and utilize new approaches to education such as auto-tutorial methods, computer assisted instruction, and student-centered teaching; and (4) that curriculum materials developed using these methods be tested through informal classroom experimentation and through adequate field-testing. There appears to be many opportunities for the development of innovative instructional material for vocational health occupations programs.

Behavioral Objectives in Education

One strategy for implementing the concepts of career education in health occupations education is through the use of measurable behavioral objectives in the development of instructional material. The use of behavioral objectives in education is an outgrowth of a change in the focus of education. This focus points toward education that will fulfill the needs of students, whatever their abilities and educational levels. Benjamin Bloom states that an earlier concept of education assumed that education should be an elimination process for selecting those few students capable of advancing to the highest levels of didactic studies.[1] He further notes a change in educational function:

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[1] Holloway and Kerr, Review and Synthesis, p. 15.

> . . . education has as its primary function the development of the individual. Under this view, the central task of the schools is to develop those characteristics in students which will enable them to live effectively in a complex society. The underlying assumption is that talent can be developed by educational means, and that the major resources of the schools should be devoted to increasing the effectiveness of individuals rather than to predicting and selecting talent.[2]

Acceptance of this concept of education has led to the development of behavioral objectives. Bloom states that behavioral objectives describe ways in which the students are to be changed by their interaction with the process and materials of instruction.[3] This concept forms the basis for choosing teaching materials, selecting strategies, and evaluating student achievement. The use of behavioral objectives permits the teacher and student both to understand the observed change, whether the objective relates to reaching a professional goal or acquiring a vocational skill.

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[1] Benjamin S. Bloom, J. Thomas Hastings, and George F. Madaus, Handbook on Formative and Summative Evaluation of Student Learning (St. Louis: McGraw-Hill Book Co., 1971), p. 5.

[2] Ibid., p. 6. [3] Ibid., p. 32.

Since all students do not learn in the same way or at the same rate, different teaching methods are needed to assist the student in achieving the behavioral objectives. The student should have a choice in the learning process used to achieve the objective. Bloom states that after the teacher has clearly stated the objectives of the course,

> . . . he will consciously make his selection of materials, teaching procedures, and instructional strategies. . . . [He] will find ways of working with individual students . . . in order to accomplish the given aims.[1]

The goals of health occupations education may be reached by the use of teaching materials and strategies based on behavioral objectives.

As noted above,[2] there is a need for instructional material in health occupations education dealing with an overall view of the system of health care. An instructional unit dealing with not only the health care facilities, personnel, and organizations but also with the attitudes needed to become a member of the health care team is greatly needed. This unit would serve as an introduction and orientation to to the health care delivery system. This material, developed in modular form, could be used by beginning students in many health care programs, whether the student goal is a professional degree or vocational training. The student may choose the learning alternatives in the module that are most suited to his individual needs, in order to meet the stated objectives, and achieve an understanding of the health care delivery system.

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[1] Bloom, et al., Handbook on Evaluation, p. 9.

[2] See page 26.

The Health Care Delivery System

Students enrolled in an occupational program designed to prepare them to function as health care professionals, technicians, or assistants must have an understanding of the environment in which these occupations function. This environment is concerned with the cure of illness, maintenance of health, and the alleviation of suffering. From the days of the native witch doctor, using herbs and primitive treatment methods, to the present era with health care offered in a modern hospital, people have looked to health care workers for assistance in curing their ailments and diseases. Beginning with a one-to-one relationship between the patient and the healer, modern civilization has developed a complex health care delivery system involving many different agencies, organizations, facilities, and personnel. This system is involved with the delivery of health care to persons in all walks of life, in a variety of circumstances, and with a bewildering array of equipment and personnel.

Health Care Facilities

Many factors have led to the development of the facilities presently incorporated into the health care delivery system. Sloane and Sloane look at some of these factors.

> Technologic contributions have in themselves created new types of health facilities and have broadened the scope of those already existing. The advent of various types of third-party insurance has enabled the public to afford this care, and their needs are being met in a variety of ways. The list of contemporary health facilities is ever expanding.[1]

Health care facilities offer treatment to patients in the facility or out of the facility, and they may be geared for short-term or long-term care. The facility may be owned by a branch of the government, by an individual or group operating for a profit, or by a non-profit organization. These are some of the ways in which health care facilities may be categorized and there are many sub-groups among these categories. Persons involved in the delivery of health care must become familiar with an increasing variety of health care facilities.

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[1] Robert M. Sloane and Beverly L. Sloane, A Guide to Health Facilities, Personnel and Management (St. Louis: C. V. Mosby Co., 1971), p. 16.

Health Care Personnel

The health care delivery system employs persons with educational preparation ranging from on-the-job training to education in graduate schools and residency programs. Changes in the patterns of health care, in the methods of preparing health care personnel, detailed above,[1] and the knowledge explosion in health care science have all been responsible for the emergence of many new health careers. Ruth French describes the effect of the knowledge explosion on the development of new health occupations:

> One result of the knowledge explosion has been a necessary increase in medical personnel who can be grouped by the specialized knowledge and skills important to health care activities. The techniques and instruments developed in response to the new knowledge are extremely important, for they have affected the staffing patterns and content of educational programs of many of the health services and precipitated the development of new health occupations.[2]

Persons interested in pursuing a health career, as well as those actively involved in a health occupations education program, need an understanding of the personnel involved in the delivery of health care.

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[1] See pages 18-21 for a description of changes in health occupations education programs.

[2] Ruth M. French, The Dynamics of Health Care, 2nd ed. (New York: McGraw-Hill Book Company, 1974), p. 67.

Health Care Organizations

To the person who is gaining experience in the health care delivery system for the first time, regardless of his academic background, the facilities, personnel, mores, and organizational structure present a bewildering array of complex situations. Thus students interested in a health occupations career need guidance to assist them in understanding how and why the system functions and their role within this system. French gives a description of the complex organization of health care in the United States.

> Health care in America is big business. As a business it is organized in a variety of ways, each pattern dictated by goals which serve some segment of the health field. The multiplicity of these health organizations, or agencies, is a reflection of the complexity of the field. No one organization or agency is capable of dealing with all the elements of health care, nor should it be expected to. Thus multiplicity of agencies also demonstrates the tremendous growth of knowledge and the increasing sensitivity of society to the needs of its people.[1]

Health care organizations have been discussed at length by C. L. Anderson, Malcolm MacEachern, and Carter Marshall, to name but a few in addition to those cited above.[2] However, most of these textbooks describe only a portion of the system or are designed for the student seeking a health profession. There are limited resources which present an overview of the entire health care delivery system for the beginning student. In addition, references giving factual information regarding facilities and organizations fail to deal adequately with the emotional and philosophical aspects of caring for the sick. A simple, yet comprehensive, instructional unit describing the health care delivery system could be used by beginning students in many health occupations programs.

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[1] Ibid., p. 23.

[2] C. L. Anderson, Health Principles and Practice, 6th ed. (St. Louis: C. V. Mosby Co., 1970), p. 345; Malcolm T. MacEachern, Hospital Organization and Management, 3rd ed. (Chicago: Physician's Record Co., 1957); and Carter C. Marshall and David Pearson, Dynamics of Health and Disease (New York: Appleton-Century-Crofts, 1972).

Cognitive Style as a Factor in Student Achievement

One question considered during this study was the relative effectiveness of the modular approach with students having different learning styles. The experience of other instructors indicates that the modular approach to instruction is not equally effective with all students. Recent studies in educational research have indicated that factors other than those of basic intelligence, as determined by the standard intelligence tests, are a factor in the learning ability of students. One of these factors is known as cognitive style. Cognitive style is defined as "a person's typical way of processing the information he receives from the world around him and within himself."[1]

Cognitive Style

Herman A. Witkin has conducted research studies looking at the effect of cognitive style on education. He states:

> The past two and a half decades have seen a vast amount of research on what have come to be known as "cognitive styles". . . . Perhaps the most promising and exciting prospects for the cognitive-style approach lie in the field of education. While relatively little research has been done, compared to what is possible and needed, it is already clear that cognitive style is a potent variable in students' academic choices and vocational preferences . . . in how students learn and teachers teach, and in how students and teachers interact in the classroom.[2]

The effect of cognitive style on the student's ability to achieve using the modular approach was one of the questions considered in the present study. Another question considered was the extent to which student achievement was affected by the cognitive style of the teacher when this differed from the cognitive style of the students. Witkin and his associates in their research on cognitive styles considered these questions. Their results are summarized below.

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[1] Louise R. Ritenour, ed., "Witkin and ETS Research Group Investigate Cognitive Styles," ETS Developments (Princeton, New Jersey: Educational Testing Service, Winter, 1974).

[2] Herman A. Witkin, The Role of Cognitive Style in Academic Performance and in Teacher-Student Relations, Research Bulletin 73-11, Educational Testing Service (Princeton, New Jersey: Educational Testing Service, 1973), p. 1.

Field-Dependence-Independence

A report in ETS (Educational Testing Service) Developments describes the research studies done by Witkin and his associates:

> Herman Witkin, chairman of the ETS Personality and Social Behavior Research Group, is directing research to determine the origin of individual differences in cognitive style . . . and to explore the implications of cognitive style for problems of education. . . . Research has identified a number of different cognitive styles. Witkin and his colleagues are particularly concerned with "field-dependence-independence." Persons with a relatively field-independent style perceive parts of any field as discrete from the field as a whole; that is, they perceive "analytically." Those with a relatively field-dependent style are likely to perceive an item as merged with the field that surrounds it; that is, their perception is "global."[1]

An early test of cognitive style developed by Witkin involved the subject attempting to adjust a rod and frame from a tilted to an upright position in a room darkened to exclude all other visual stimuli. A later development in the testing indicated that the same results could be obtained by having the subjects perform a paper-and-pencil test. For example, the subject is shown a simple geometric figure. This figure is then removed and the subject must locate it in a complex design of which it is a part. In both test situations the experimenter is left with a measured record of the extent to which the subject's observance of an item has been influenced by the organized field surrounding it. The common factor underlying individual differences in performance in these tasks is the analytical stance of the individual.

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[1] Ritenour, "Witkin and ETS Research."

> Because at one extreme of the performance range perception is strongly dominated by the prevailing field, we speak of that mode of perception as "field-dependent." For the other extreme, where the person is able to deal with an item independently of the surrounding field, we use the designation "field-independent."[1]

Witkin and his associates have developed a Group Embedded Figures test that makes large-scale testing possible.[2] The Group Embedded Figures instrument is a timed test with the subjects given eighteen single figures embedded in complex figures. The score indicates the number of figures correctly located in the time allowed for the test.

Testing with groups of persons using variations of the tests described above indicated that

> . . . the individual, who, in perception, cannot keep an item separated from the surrounding field is also likely to have difficulty with the kind of problem that required taking some critical element out of the context in which it is presented and restructuring

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[1] Witkin, The Role of Cognitive Style, p. 5.

[2] Oscar K. Buros, ed., Personality Tests and Reviews (Highland Park, New Jersey: The Gryphon Press, 1970), p. 38.

> the problem material so that the element is now used in a different way. This is often the requirement in problems of mathematical reasoning, for example.[1]

Further analysis revealed that field-dependent and field-independent persons are not particularly different in their performance on other types of problem solving tasks that lack this requirement, for example, tasks involving verbal skills of the kind so heavily featured in the usual standard intelligence tests.

Cognitive Styles of Teachers and Students

How are the achievement levels of students affected by the cognitive style of the teacher? A study of Grieve and Davis, 1971, indicated that "how much knowledge students acquired by different teaching methods tend to be related to their cognitive style."[2] Witkin's colleagues have found that students achieve at a higher level when the teaching method is geared to exploit the cognitive style of the student.[3]

Witkin cites other studies which seem to indicate that the teacher's cognitive style has an influence both on the choice of a teaching subject area and on the teaching style. Those who favor teaching as a profession tend to be field-dependent; however, teachers choosing mathematics and science as a teaching field tend to be field-independent.[1]

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[1] Witkin, The Role of Cognitive Style, p. 66.

[2] Ibid., p. 30.

[3] Ibid., p. 31.

A recent study by DeStefano, 1969, provides evidence on the consequences of match or mismatch in cognitive style between teacher and students.

> Teachers and students matched for cognitive style described each other in highly positive terms whereas teachers and students who were mismatched showed a strong tendency to describe each other negatively.[2]

Findings such as these seem to indicate that whether a teacher or student is rated "good" or "bad" depends on how closely related that person's cognitive style is to the person doing the evaluating. A teacher may be "good" or "bad" for a particular type of student. Similarly, a student may be "good" or "bad" with a particular type of teacher.[3] Witkin states that people matched in cognitive style are likely to get along better in such social contexts as the student-teacher relationship, demonstrating that similarity makes for mutual attraction:

> Evidence indicates that persons matched in cognitive style tend to get along better . . . for three possible kinds of reasons: first, because of a shared foci of interests; second, because of common

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[1] Ibid., p. 27.

[2] Ibid., p. 37.

[3] Ibid., p. 33.

> personal characteristics; and, third, because of similarity in communication modes, making for easier and more effective communication.[1]

These findings indicate that a particular type of cognitive style, field-dependence-independence, plays a role in the student's ability to learn. Both the method by which the instructional material is presented and the preferred cognitive style of the teacher influence the student's level of achievement in a specific instructional unit. Herman Witkin and his associates have developed and validated a simple test for determining "field-dependence" or "field-independence" called the Group Embedded Figures Test. This instrument may be used with groups of students and teachers to test their relative "field-dependence" or "field-independence." By using it the teacher or curriculum developer gains valuable insight into the student's "ability to learn" which is not indicated by the usual intelligence tests. This information is a valuable aid in the effort to develop more effective instructional material.

Summary

A review of the literature concerning the topic of this study revealed the current status of curriculum development in secondary health occupations education programs. The following trends appear to be emerging:

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[1] Ibid., p. 37.

1. Career education is a dynamic concept linking education for living with education for making a living. Moreover, health occupations instructional material must serve as the vehicle by which career education bridges the gap between a student's orientation to a health career and his full-time career as a health professional or health technician.

2. Health occupations education is expanding at the technical and vocational levels, and into the secondary school program. This type of instruction is also moving from service institutions into general education institutions. These changes have brought about a great need for innovative curriculum development in health occupations education.

3. Curriculum development in health occupations education has not kept pace with program development. There is a great need for instructional material built around behavioral objectives identified by health occupations instructors. This material should utilize new approaches to education, such as, auto-tutorial methods, computer assisted instruction, and student-centered teaching. These materials should be tested through informal classroom experimentation and through adequate field-testing.

4. Measurable behavioral objectives used in health occupations instructional material permit the teacher and

student to agree in advance on the objectives to be achieved and the behavior which indicates that the objective has been reached.

5. The health care delivery system encompasses the entire group of health care facilities, organizations, and personnel; and the way in which these persons and organizations are coordinated to furnish health care in the United States. This system is concerned with the cure of illness, maintenance of health, and the alleviation of suffering.

6. A type of cognitive style, field-dependence-independence, appears to play a role in the achievement level of students, apart from the generally accepted intelligence tests. This factor should be taken into account in planning teaching strategies for health occupations programs.

This chapter examined the background literature relevant to the purpose of this investigation. The next section will review the literature related to instructional modules.

CHAPTER III

RELATED RESEARCH ON INSTRUCTIONAL MODULES

The world today is moving at a faster pace than ever before, not only in health occupations education but also in every aspect of life. This state is dramatically described by Alvin Toffler in Future Shock:

> In the three short decades between now and the twenty-first century, millions of ordinary, psychologically normal people will face an abrupt collision with the future. Citizens of the world's richest and most technologically advanced nations, many of them will find it increasingly painful to keep up with the incessant demand for change that characterizes our time.[1]

These rapidly developing changes have an impact on education. People will need to continue education throughout their life time to keep up with these rapid changes, and thus educational methods used in the past are not adequate for the educational needs of today and the future. A recent new approach to education, competency-based instruction, has gained wide acceptance:

> Perhaps no movement has captured the imagination of so many educators in so short a period as competency-based education. The emphasis in such programs is on objectives rather than activities. Competencies to be demonstrated by students are defined as explicit

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[1] Alvin Toffler, Future Shock (New York: Random House, Inc., 1970), p. 9.

> objectives, with activities identified which facilitate the student's achievement of stipulated objectives. . . .[1]

One method of instructional presentation, the instructional module, is based on behavioral objectives, has self-pacing components, and facilitates student learning by presenting several learning alternatives.

The instructional module is built on the premise that all persons do not learn in the same way. The module presents an effective strategy for individualizing instruction and incorporates the use of instructional media.

> An instructional module may be defined as a set of learning activities intended to facilitate the student's acquisition and demonstration of a particular competency or set of competencies.[2]

This method is seen as multi-faceted--offering several learning alternatives, so that the student may reach the objectives in a manner which is most meaningful to him. The module incorporates individualized or self-instructional components, and this type of instruction permits the maximum use of the instructors' skills:

> Instructors are potentially the most sensitive, flexible, and divergently responsive components of any instructional system. Under the limitations of conventional teaching, however, they seldom

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[1] Robert L. Houston et al., Developing Instructional Modules (Houston: University of Houston, 1973), p. iii.

[2] Wilford A. Weber, John Bross, and Bonnie L. Weber, Health Occupations Education Workshop (Houston: University of Houston, 1974), p. 5.

> have time or opportunity to do what they can do best: (1) diagnose learner difficulties; (2) interact with students when they need help on a one-to-one basis or in small group discussions; (3) inspire and motivate; and (4) identify and encourage creativity and self-direction. Self-instructional packages are essential if teachers and students are to be free for this type of instruction.[1]

The modular approach permits the use of individualized instructional packets, as well as other learning alternatives to help the students meet the desired objectives.

Modular Components

Instructional modules may assume several different formats depending upon their use. "In most cases they include five parts: prospectus, objective, pre-assessment, enabling activities, and post-assessment."[2]

1. The prospectus introduces the module. Included in this section are the rationale, basic assumptions, module outline, prerequisites, and procedures for completing the module.
2. The objective states the competencies demonstrated by the learner upon successful completion of the module.
3. The pre-assessment has two dimensions: it measures the extent to which the learner has mastered the module

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[1] Rita B. Johnson and Stuart R. Johnson, Assuring Learning With Self-Instructional Packages (Chapel Hill, North Carolina: Self Instructional Packages, Inc., 1971), p. 2.

[2] Houston et al., Developing Modules, p. 11.

prerequisites and tests the student's competency to meet the module objectives.

4. Enabling activities specify the learning alternatives for attaining the modular competencies. Every module should contain at least two, and the student is also free to supply his own. The emphasis is on achieving objectives, not participating in activities.
5. Post-assessment signals the completion of the module by a successful demonstration of the competencies listed in the objectives.

Modules and their component formats may differ according to their purpose, population, available facilities, and the need for special equipment. Regardless of the format, modules almost always include the five parts listed above. The instructor developing a module should consider his needs, the needs of his students, the type of learning experiences, and the available resources. Modules may be contained in one volume with references to outside resources, such as films, film strips, field trips, and guest speakers; or the module may have two or more printed volumes, in addition to its own overhead transparencies, video tape, information sheets, and vocabulary. The format of a module may vary depending on the purpose, the audience, and the resources of the instructor. However, all modules have certain common characteristics.

The modular approach to instruction differs from other approaches in six characteristics, according to Robert Houston and his associates:

(1) Total program is considered before specifying instructional parts.
(2) Modules emphasize learner rather than the instructor.
(3) Modules focus first on objectives rather than activities.
(4) Modules are individualized and personalized . . . allow students to work at their own pace . . . individual students may pursue varied goals and objectives.
(5) Modules include a variety of instructional modes, such as small group seminars, individual counseling, field experiences, or audio-visual media. Educational technology is employed as a catalyst to more personalize and humanize education.
(6) A module is a process, not just a product, constantly changing, continually being redeveloped and refined.[1]

Module Development Process

Module development falls basically into four major phases: planning, production, prototype testing, and evaluation.[2] The planning stage involves first identifying the underlying philosophy, assumptions, and goals of the program. Next, the objectives are identified, instructional strategies identified, evaluation mode decided, and a description written for students and instructors. The subsequent production of the module may be simple or complex, depending on the module objectives and the learning alternatives chosen. Testing the prototype module is an opportunity to validate the module's instructional concepts and strategies. Evaluation of components and modification of the module follow the testing.

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[1] Houston et al., Developing Modules, p. 13.

[2] Ibid., p. 149.

Summary

Instructional modules represent a competency-based instructional unit. Modular components may include individualized instruction, small group discussion, audio-visual media, and other instructional strategies. Modules may vary in format but almost always have five basic sections: prospectus, objective, pre-assessment, enabling activities, and post-assessment. They are characterized by their emphasis on the total program, the learner rather than the teacher, objectives first, then appropriate activities. Modules are individualized and personalized and employ a variety of instructional concepts. The module is a process, not just a product, and is appropriate for any type of learning at any level. "The instructional module has evolved as a viable curriculum procedure for actualizing competency-based education."[1]

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[1] Houston et al., Developing Modules, p. iii.

CHAPTER IV

METHODS AND PROCEDURES

Method of Population Selection

The population selected for this research study was the entire group of students enrolled in regular Health Occupations Cooperative Training (HOCT) programs in Texas for the school year, 1974-75. These students were enrolled in the one hundred HOCT programs approved by the Texas Education Agency in 1974-75. Those enrolled in these secondary health occupations programs were considered to have a particular need for new and innovative instructional material.

To determine that all students included in the research study were from the same population, a questionnaire was mailed to each coordinator of the one hundred HOCT programs.[1] These teacher-coordinators were given a list of behavioral objectives and asked to indicate which of these objectives were included in their regular curriculum. The objectives listed in the questionnaire had been identified as important components of a health occupations curriculum by HOCT coordinators participating in in-service workshops in July 1973 and July 1974.[1] These behavioral objectives were the same as those objectives included in the experimental module.

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[1] See sample of questionnaire in Appendix E.

Replies were received from seventy-six coordinators, representing seventy-six HOCT programs. Of those answering the questionnaire forty-four, or sixty percent, included at least six of the eight listed objectives in their regular curriculum.[2] Forty-eight coordinators agreed to participate, and among this group, forty-four included at least six of the eight listed objectives in their regular curriculum. The student groups used in the study were selected from this group of forty-four programs. The programs were listed alphabetically according to the name of the independent school district and the local high school, and assigned a number. Numbering began with 001 for Abilene High School and ended with 044 for Waxahachie High School. A table of random numbers was then entered to select the ten programs for the study. Programs with even numbers were assigned to the control group, and programs with odd numbers were assigned to the experimental group.

The attrition rate for the length of the research study was twenty percent. One group of students in the experimental group was unable to complete the module before the end of the school term, and test results for one group of students in the control group were lost in the mail. Final results were tabulated for four programs in the experimental group having a total of eighty-two students and four programs in the control group having a total of sixty-seven students.

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[1] See pages 1-3 for further details of the workshops.

[2] See Figure 2.

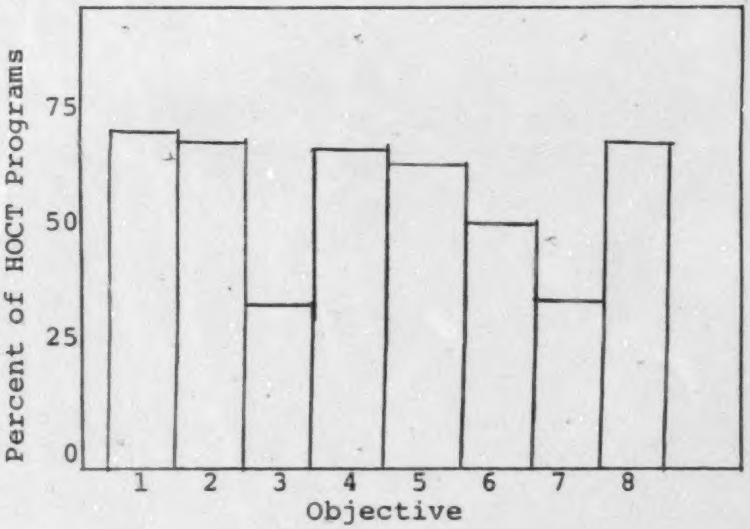

Fig. 2. Module objectives used in curriculum of local HOCT programs.

Methods For Data Procurement

Independent Variables

Experience of Teachers and Students

Information was obtained for this study regarding the experience of students in on-the-job training in a health occupation and the experience of the teacher in teaching in an HOCT program. This student experience was considered by the investigator as another method for students to reach the objectives included in the experimental module. This information, regarding the student's work experience, was obtained from the answers to a question on the posttest score sheet.

Teacher experience was considered important, since the position of HOCT teacher-coordinator is a complex one requiring not only skill in classroom teaching but also skill in placing students in a health related job and counseling with students and employers once students are placed on the job. First year teacher-coordinators may need additional instruction in guiding students in the classroom. This information regarding teacher experience was obtained from a personal interview with the individual coordinator.

Cognitive Style, Field-Dependence-Independence

The type of cognitive style known as field-dependence-independence was determined for students and teachers involved in this research study. The cognitive style of the teachers and students was obtained by the administration of the Group Embedded Figures Test, developed by Herman A. Witkin.[1] All tests were administered by a counselor in the individual school,[2] and all teachers in the study participated. Counselors at each school selected one-third of the students in the study groups to take the test by selecting every third name as it appeared on the teacher's current Roll Book.

The resulting tests were scored by the investigator. For computational purposes the scores were grouped in the following manner:

Group	EFT Score
1	0-6
2	7-12
3	13-18

Group one (1) represented those subjects who were relatively field-dependent, or whose perception is "global."[3] Group two (2) represents those who showed attributes of both field-dependence and field-independence. Group three (3) represents those subjects who were relatively field-independent, or whose perception is "analytical."[1] These test results were used to determine the extent to which the cognitive style of the student affected his level of achievement, indicated by his posttest score, using the experimental module. Cognitive style test results were also used to determine to what extent the posttest scores of students were effected when their cognitive style differed from that of the teacher.

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[1] For further discussion see pages 35-39.

[2] See Letter to Counselor in Appendix D.

[3] See further discussion on page 35.

Dependent Variable

The dependent variable in this research study was the posttest scores of students in the experimental and the control groups. The posttest consisted of 121 multiple choice questions. Answers were entered on International Business Machines answer sheets provided by the investigator and were graded using the data processing facilities at the Texas Woman's University. Scores were determined by totalling the number of correct answers for each student taking the posttest. Students in the experimental programs were administered the posttest in sections, following the completion of the objectives for each unit,[2] while students in the control programs were administered the entire posttest at one sitting.[1]

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[1] Ibid.

[2] See letter to teacher in experimental program in Appendix E.

Teacher Evaluation of the Experimental Module

A teacher evaluation of the experimental module was obtained by the use of a questionnaire.[2] Teachers participating in the experimental programs were asked to evaluate each unit of the module separately and also to evaluate the module as a whole. These teachers were viewed, by the investigator, as subject specialist resource persons and as curriculum developers in secondary health occupations programs. Their critique and comments were used during modification of the module, following the pilot testing program.

Teachers were asked to rate each individual unit of the module by answering sixteen questions covering the following aspects: instructional concepts, terminology, meeting of objectives, ease of use, interest of students, quality of visuals, quality of audio portion, and time used for the unit. These educators also rated the overall effectiveness of the eight units using the modular approach to learning. Each item was rated on a Likert-type scale from one to seven, utilizing descriptive terms at each end of the scale and a neutral term for the center of the scale. Teachers were encouraged to add individual comments regarding any aspect of the experimental module.

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[1] See letter to teacher in control programs in Appendix E.

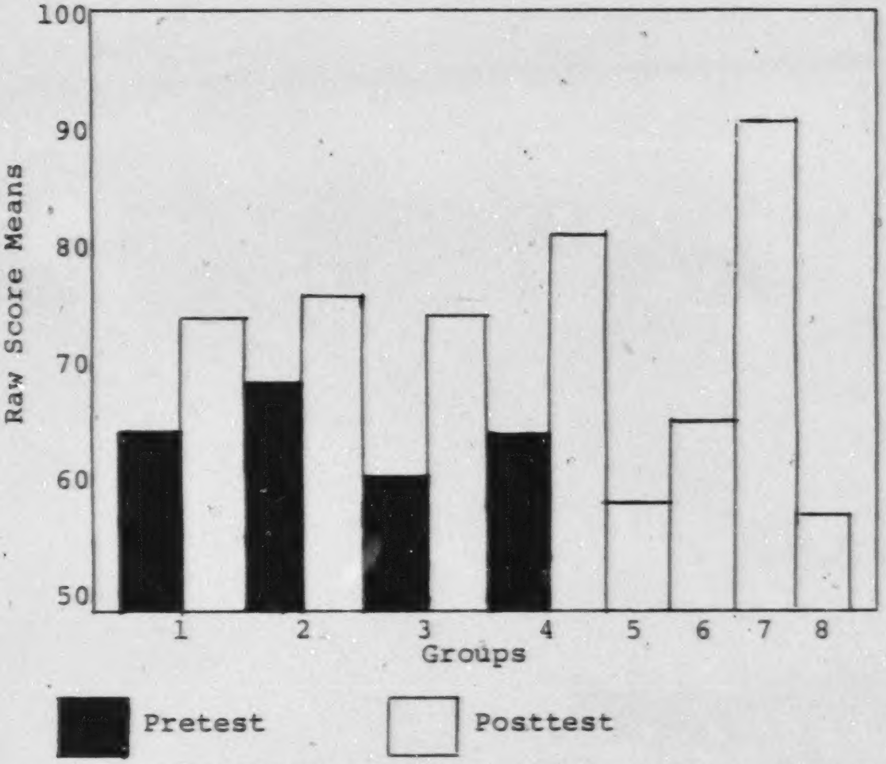
[2] See sample of questionnaire in Appendix D.

Procedure For Pilot Testing

The procedure used for pilot testing the experimental module followed the Posttest-Only Control Group Design. As noted earlier, the students in programs participating in the experimental study were randomly selected from the same population. Students in both the experimental and control programs were administered the posttest, and those in the experimental groups were also given a pretest. This served as the basis for computing gain scores for these students. Figure 3 illustrates graphically the group means of the experimental and control groups.

Students in the experimental programs were taught by the regular teacher in the regular classroom using the material in the experimental module. The teacher was given approximately six weeks to cover the material in the module.

Prior to the pilot testing, the material in the module and questions in the posttest were previewed by three classes of students located in the immediate geographic area of the investigator. These programs were located in Paschal



	EXPERIMENTAL GROUPS			CONTROL GROUPS
	Pretest	Posttest		Posttest
1	65.18	74.09	5	58.35
2	69.59	76.14	6	65.95
3	61.74	74.05	7	91.05
4	64.77	81.38	8	58.44

Fig. 3. Experimental and Control Group Means on Raw Scores

High School, Fort Worth; South Grand Prairie High School, Grand Prairie; and Central High School, San Angelo. This preview served to identify obvious problems with the instructional methods, terminology, or evaluation instruments. Changes made in the material following this preview were a change in the numbering system for the pretest-posttest questions and revisions in the dialogue for the slide-tape presentation in Units 3 and 4.

Summary

This chapter has outlined the methods and procedures used in this research study. Descriptions were given of the method of population selection; the methods for data procurement, for both independent variables and the dependent variable; teacher evaluation of the experimental module; and the procedure used for pilot testing the module. The next section will describe the data analysis and findings resulting from this analysis.

CHAPTER V

DATA ANALYSIS AND FINDINGS

The basic goal of this study was to produce and validate an instructional module on Health Care Delivery Systems for high schools. One means of reaching this goal was to determine the effect on student learning of using the experimental module; another means was collating the results of a teacher evaluation of the experimental module. A description of the procedures used to determine these factors is given in this chapter.

Data Analysis

The statistical procedures selected for this study had to be appropriate for the purpose of the study. In addition to the experimental module, three other factors were analyzed to ascertain their effect on student learning: student work experience in a health occupation; teacher experience in a Health Occupations Cooperative Training program; and the cognitive style, field-dependence-independence, of the students and teachers. Multiple analysis of variance was considered appropriate for determining the relative importance of these factors on the posttest scores of students in the study. Multiple analysis of variance also indicates any interaction of factors on the scores of the students. Due to technical problems, all four factors could not be included in the multiple analysis of variance. Because of the small number of subjects in each section, the cognitive style factor was dropped from the group, and a one way analysis of variance was done using this one factor.

Analysis of the data was performed by the program BMDO5V-General Linear Hypothesis (Revised September 12, 1969) Health Service Computing Facility, University of California, Los Angeles, for the first three factors. Table 1 and Table 2 show the results of this analysis. The fourth factor was analyzed by using the program ST001: Analysis of Variance, one-way design (revised June, 1975), North Texas State University. Tables 3, 4, 5, and 6 summarize the results of this analysis.

Hypotheses and Data Analysis

The following section provides a review of the hypotheses made prior to the study and an analysis of data collected during the study related to these hypotheses. Tables containing the pertinent data accompany the text, and a statement of the hypothesis is followed by the statement of retention or rejection based on the probability value. For rejection the probability must be less than .05; for retention, more than .05.

1. There is no significant difference between the effect on learning achievement produced by use of the experimental module versus not using the experimental module.

   This null hypothesis for Factor A was rejected.

Table 1 gives the F ratio for the three factors tested and the F ratio needed (3.91) to indicate significance at the .05 level of confidence for this 3 x 2 program. Factor A, use of the experimental module, had an F ratio of 10.88836 indicating a significant difference in the achievement level of students using the experimental module.

TABLE 1

MULTIPLE ANALYSIS OF VARIANCE OF DATA ON EXPERIMENTAL MODULE, STUDENT EXPERIENCE, AND TEACHER EXPERIENCE

Source	df	F Ratio
A	1	10.88836*
B	1	0.48638
C	1	5.19248*
AB	1	0.95198
AC	1	21.90988*
BC	1	1.67235
ABC	1	0.05109

*Indicates significance at .05 level

$F_{(.95,1,141)} \overset{n}{=} 3.91$

Factors
A Experimental Module
B Student On-the-job Experience
C Teacher Experience Teaching HOCT

2. There is no significant difference between the level of learning achievement produced by the student's experience or lack of experience in on-the-job training in a health occupation.

This null hypothesis for Factor B was retained. Table 1 shows that the F ratio for factor B, student experience on-the-job, was less than 3.91 indicating no significant difference in the achievement level of students having on-the-job experience and those with no experience.

3. There is no significant difference between the level of learning achievement in a classroom with a teacher having no previous experience in an HOCT program versus a classroom with an experienced teacher.

This null hypothesis for Factor C was rejected. The F ratio for Factor C, in Table 1, is greater than 3.91 indicating a significant difference in the achievement level of students having a teacher with experience in an HOCT program.

4. There is no interaction of factors affecting the level of learning achievement produced by students using the experimental module and having on-the-job training in a health occupation.

This null hypothesis for interaction AB was retained. The F ratio for interaction AB, Table 1, was less than 3.91 indicating no significant difference in the achievement level of students using the experimental module and having on-the-job training in a health occupation.

5. There is no interaction of factors affecting the level of learning achievement produced by students using the experimental module and taught by teachers having previous experience teaching in an HOCT program.

This null hypothesis for interaction AC was rejected. The F ratio for interaction AC, as determined by the multiple analysis of variance, is shown in Table 2. The F ratio of 21.90988 was greater than 3.91 indicating that students using the experimental module and taught by teachers having previous experience teaching in an HOCT program had a significantly higher achievement level. On Table 2, the cell means for factor A, factor C, and the interaction of these two factors is given. The mean for all students using the experimental module was 76.8, compared with a lower mean of 70.9 for students not using the module. The mean for all students having an experienced teacher was 75.1, compared with a lower mean of 70.4 for students having an inexperienced teacher.

Table 2

INTERACTION EFFECT OF EXPERIMENTAL MODULE AND TEACHER EXPERIENCE

		Factor A		
		1 Module	2 No Module	
Factor C	1 No Teacher Experience	77.6	68.9	70.4
	2 Teacher Experience	76.7	72.3	75.1**
		76.8*	70.9	

*Main effect of Factor A was significant.

**Main effect of Factor C was significant.

Figure 3 indicates in a graphic way how these factors, A and C, interact to produce a significantly higher achievement level. If the lines were parallel, there would be no significant interaction.[1] The graph illustrates the interaction effect when the experimental module, Factor A_1, is combined with teacher experience, Factor C_2.

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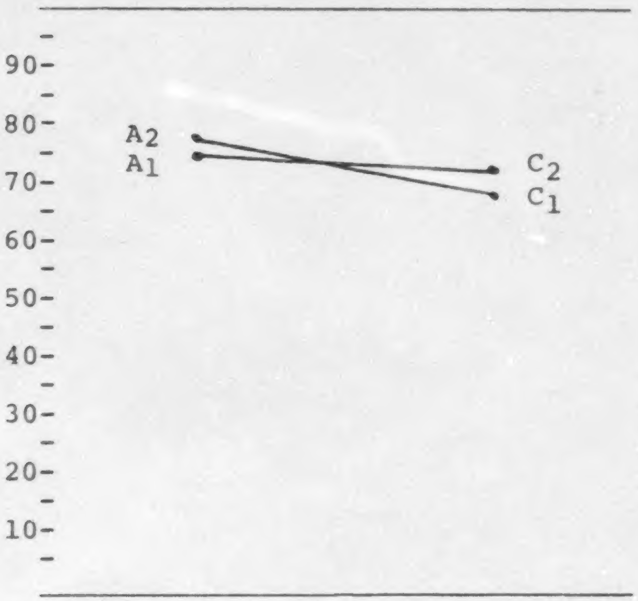
[1] Edward W. Minium, Statistical Reasoning in Psychology and Education (New York: John Wiley and Sons, Inc., 1970), p. 374.



Non-parallel lines indicate an interaction effect.

High performance is expected when A_1 occurs in combination with C_2.

Cell means:				
	A_1C_1	77.6	A_2C_1	68.9
	A_1C_2	76.7	A_2C_2	72.3

Fig. 4. Interaction effect of factor A and factor C.

6. There is no interaction of factors affecting the level of learning achievement produced by students having on-the-job training in a health occupation and taught by teachers having previous experience teaching in an HOCT program.

This null hypothesis for interaction BC was retained. The F ratio for interaction BC, Table 1, was less than 3.91, indicating no significant difference in the achievement level of students having on-the-job training and taught by teachers having previous experience teaching in an HOCT program.

7. There is no interaction of factors affecting the level of learning achievement produced by students using the experimental module, having on-the-job training in a health occupation, and taught by teachers having previous experience teaching in an HOCT program.

The null hypothesis for interaction ABC was retained. The F ratio for interaction ABC, Table 1, was 0.05109 or less than the 3.91 needed to indicate a significant difference in the achievement level of students using the experimental module, having on-the-job training, and taught by teachers having previous HOCT teaching experience.

Hypotheses 8 and 9 were directed toward the effects of the teacher's and/or the student's cognitive style, field-dependent-independent, on student achievement using the modular approach. Hypothesis 8 became inoperable due to the data collected. All teachers in the study scored between 13 and 18 on the Embedded Figures Test, placing them in Group 3, relatively field-dependent. Therefore, there was no basis for a comparison of the effect on the student's achievement level of having a teacher with a different cognitive style. The remaining Hypothesis 9 was checked for retention or rejection.

9. There is no significant difference between the level of learning achievement produced by students having a different cognitive style, field-dependent or field-independent, as determined by scores on the Embedded Figures Test.

This null hypothesis was retained.

Table 3 shows the mean and standard deviation for students in the three groups. Table 4 shows the results of an analysis of variance on this data.

TABLE 3

SUMMARY DATA ON STUDENT"S COGNITIVE STYLE,
FIELD-DEPENDENCE-INDEPENDENCE

	Group 1 Field-dependent	Group 2 Moderate	Group 3 Field-independent	Total
n:	18	20	20	58
M:	72.555556	79.85000	76.95000	76.58621
SD:	16.47894	13.92187	12.14519	14.30009

The probability of a significant difference between the scores of students having different cognitive styles is shown in Table 4. The F ratio and Bartlett's test, Chi Square, indicate a probability greater than .05 that the differences were not significant.

TABLE 4

ANALYSIS OF VARIANCE OF DATA ON STUDENT'S COGNITIVE STYLE, FIELD-DEPENDENCE-INDEPENDENCE

						Bartlett's test	
	df	Sum of Squares	Mean Square	F Ratio	p	Chi Square	p
Between Groups	2	508.1245	254.0623	1.2535	0.2935	1.5667	0.6670
Within Groups	55	11147.9444	202.6899				
Total	57	11656.0690					

A comparison of the three student groups, field-dependent, moderate, and field-independent, Table 5, using Fisher's t test, indicates no significant difference between the groups.

TABLE 5

SUMMARY OF FISHER'S t STATISTIC ON THREE LEVELS
OF STUDENT'S COGNITIVE STYLE

Group No.	1	2	3
1	00	-1.5770	-0.9501
2		00	0.6441
3			00

Range tests: Duncan's, Newman-Keuls', and Tukey's, checked at the .05 level of significance, gave a comparison of the mean scores of each of the three groups: field-dependent, moderate, and field-independent. The mean difference did not exceed the range product value in any rank, Table 6, indicating no significant difference between the three groups.

Results of the tests performed in the one-way analysis of variance indicated that the student's cognitive style, field-dependent-independent, was not a factor in his achievement level when using the modular approach to the instructional material.

TABLE 6

RANGE TESTS BASED ON DATA ON STUDENT'S COGNITIVE STYLE

Range Values		Duncan's 2.858 3.006	Newman-Keuls' 2.86 3.44	Tukey's 3.150 3.444	Mean Difference
Range Products					
Ranks	Initial Groups				
3-1	2-1	9.83174	11.25123	11.25123	7.29444
3-2	2-3	9.09836	9.10473	10.02794	2.90000
2-1	3-1	9.34768	9.35422	10.30273	4.39444

Teacher Evaluation of the Module

The four teachers who used the experimental module were asked for a critique of both the modular approach to the instructional material and the separate components of the module. The teachers answered questionnaires rating the modular approach and rating separate units of the module.[1] Teachers were encouraged to add their personal comments regarding any aspect of the module. A summary of the evaluations and comments from the four teachers using the experimental module are given below.

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[1] See sample of questionnaires in Appendix E.

Modular Approach

Table 7 shows a summary of the teachers' evaluation of the modular approach. All four teachers considered the modular approach effective and would use the module again if given the opportunity. All considered the module valuable but differed in their opinion of the amount of time that should be scheduled for the unit. Recommendations ranged from five to fifteen percent of the total classroom time available in the HOCT program. In the evaluation of key concepts, those included in Unit 3, Health Care--Primitive to Modern, appeared the most controversial. One teacher thought the unit should be deleted, while another would expand the unit to include medical ethics. With one exception the module was considered easy for students and teachers to use. One teacher considered Unit 3 difficult for both students and teacher.

Evaluation of Individual Units

A summary of the four teachers' evaluation of the eight separate units is contained in Table 8. The questionnaire for rating separate units of the module considered the instructional concepts, terminology, objectives met, ease of use, interest of students, quality of visuals and audio portion, and time used for each unit.

TABLE 7

SUMMARY OF TEACHER EVALUATION OF THE MODULAR APPROACH TO "ORIENTATION TO THE HEALTH CARE DELIVERY SYSTEM

Items	Ratings	Teacher			
		1	2	3	4
Overall Value	valuable	x	x	x	x
	little value				
Key Concepts	add		x	x	x*
	delete	x**			
Classroom Time Used	8 hrs. or more	x	x	x	x
Desirable % of Classroom Time	5%		x		
	10%	x			x
	15%			x	
Modular Approach	effective		x	x	x
	average	x			
	poor				
Use Again	yes	x	x	x	x
	no				

*Add concepts to Unit 3

**Delete Unit 3

TABLE 8

SUMMARY OF TEACHER'S EVALUATION OF INDIVIDUAL MODULE UNITS

(Numbers represent teacher replies)

Items	Ratings	Module Units							
		1	2	3	4	5	6	7	8
Concepts	too complex	1		2	1	1		2	1
	adequate	3	4	2	2	3	4	2	2
	too simple				1				1
No. of Concepts	too many			3					
	adequate	4	4	2	4	4	3	3	3
	too few						1		1
Sequencing	excellent	3	1	3	4	3	2	3	1
	average		3	1		1	1	1	3
	poor	1							
Quantity of Material	too much					1		3	2
	adequate	3	4	3	4	3	3	1	1
	too little	1							
Terminology	too complex	1	1	2	1	1	1	2	1
	adequate	3	3	2	3	3	3	2	3
	too simple								
Objectives Met	yes	3	4		3	3	4	2	2
	partially			1		1		1	1
	no	1		1	1			1	
Ease of Student Use	too simple		1		1	1	1	1	1
	easy	4	3	2	3	3	2	3	3
	difficult		2				1		
Ease of Teacher Use	too simple		1		1	1	1	1	1
	easy	4	3	3	3	3	3	3	3
	difficult								
Interest of Student	high	1	3	2	1	2	2	3	2
	average	2	1		1	2	2		1
	low	1		2	2			1	1
Quality of Slides	excellent	2	N.A.	4	2	2	N.A.	2	3
	average	2			2	2		1	1
	poor							1	
Quality of Audio	excellent	1	N.A.	1	1	1	N.A.	1	1
	average	2		1	1	2		1	1
	poor	1		2	2	1		2	2

Table 8--Continued

Items	Ratings	Module Units							
		1	2	3	4	5	6	7	8
Slides Illustrate Concepts	excellent	2	N.A.	3	1	2	N.A.	3	3
	adequate	1			1	2		1	1
	poor	1		1	1				
Audio Enhances Visuals	excellent	2	N.A.	3	2	2	N.A.	3	3
	adequate	1			1	2		1	1
	poor	1		1	1				
Student Classroom Time	30 min.					1	1	1	2
	1 hr.	3	3	4	4	3	3	3	2
	1 1/2 hrs.	1							
Total Student Time	30 min.		1			1	1	2	2
	1 hr.	2	3	3	4	3	2	1	1
	1 1/2 hrs.	2					1	1	1
	3 hrs.			1					
Percentage of Total Time Needed	<1%	1	3	1	3	2	2	1	2
	1%	2		2		1	2	1	1
	2%		1		1			2	
	3%	1		1		1			1

Instructional Concepts

In evaluating the quality of instructional concepts seventy-five percent of the answers indicated that teachers considered them adequate in all units except Units 3 and 7 while two teachers or fifty percent considered these units too complex. The concepts in Unit 4 were judged too simple by one teacher. The number of concepts were judged adequate in all units except Unit 3; in the opinion of two teachers there were too many concepts in this unit. Sequencing of concepts was considered average to excellent in all units except one. One teacher judged the sequencing in Unit 1 to be poor.

Material, Terminology, and Objectives

The majority of teachers considered that the objectives had been met through adequate material and terminology. One teacher asked for more reference material for Unit 1; on the other hand, an oversupply of material was noted by one teacher in Unit 5, three in Unit 7, and two in Unit 8. The terminology was judged as too complex by at least one teacher in each unit, and two teachers judged the terminology in Units 3 and 7 too complex. Doubt about the objectives being met was expressed by one teacher in Units 1, 3, 4, and 7.

Quality of Slides and Audio Portion

The majority of teachers judged the slides as average to excellent in quality. One teacher requested that all slides be shown with the room lights on so that students could take notes during the presentation. Teachers considered the concepts as being well illustrated by the slides with three exceptions. One teacher in each of Units 1, 3, and 4 considered the slides were inadequate. Three out of the four audio tape cassettes were judged poor in quality. The problem apparently arose during reproduction of the tape cassettes. In spite of this problem the teachers considered, with three exceptions, that the audio portion enhanced the visual presentation.

Time Used For the Module

Students in a majority of the groups spent one hour of classroom time on each of the units but appeared to spend very little time outside of class on the units. Teachers cited only six instances of additional time being spent on the units. The four teachers differed greatly in their answers as to the percentage of total time that should be scheduled for each of the eight units. Approximately one-half of the answers recommended spending less than one percent on each unit. Approximately one-third of the answers recommended one percent of the total time be scheduled for each unit. Two percent of the total time was recommended in approximately one-tenth of the answers and three percent of the total time was recommended in the remaining one-tenth of the answers on the questionnaire.

Teachers' Comments

Teachers' comments were directed toward areas that needed modification or improvement. One teacher's comment is typical of the group.

> I have taught this unit [8] in the past and feel this is key material for health occupations students. I am excited about the added dimensions of visuals and overheads with this material. I'm excited about this method of teaching because it was fun and easy to use--[I] wish we had more of them available!

Summary of Findings

This chapter has provided an analysis of the research data obtained during this study and of the teachers' evaluation of the experimental module. The following information has resulted from this analysis:

1. The scores of students using the experimental module were significantly higher than those of students taught the same material in a more conventional manner.
2. Scores of students in a classroom with an experienced teacher were significantly higher than scores of students in a classroom with an inexperienced teacher.

3. The scores of students using the experimental module and in a classroom with an experienced teacher were significantly higher than students in other groups indicating a significant interaction produced by the experimental module taught by an experienced teacher.
4. Student's on-the-job experience in a health occupation was not a significant factor in their score on the posttest.
5. The student's cognitive style, field-dependent-independent, was not a predictor of success in using the experimental module.
6. Teachers using the experimental module considered the modular approach effective and would use the module again if given the opportunity. They offered a number of constructive suggestions for modification of the modular components.

The next chapter contains a summary of this study. It enumerates the conclusions reached regarding the study. It also lists the recommendations for further activities related to this study.

CHAPTER VI

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

This study addressed a basic need for validated instructional material for secondary vocational health occupations programs. These programs have expanded at a faster rate than development of instructional material. Therefore, development of an instructional module was seen as a positive step toward meeting this need. Consequently, the instructional module is based on behavioral objectives, is designed to be used by students with varying abilities, and facilitates student learning by presenting several learning alternatives.

The instructional module developed during the present study was an outgrowth of curriculum development in health occupations education begun by Texas HOCT teacher-coordinators in 1973. During two state in-service workshops, the teachers began with a Curriculum Outline then developed behavioral objectives for nine modules. During the 1974 HOCT in-service workshop, these nine modules were further developed with learning alternatives and audio-visual media. However, the modules were not completed. One of these modules was chosen to be completed and tested during this study.

A three day Module Development Workshop was convened by this investigator to complete plans for the module and to make decisions regarding the final objectives, learning alternatives, and audio-visual media. The title chosen was "Orientation to the Health Care Delivery System," to reflect the broad scope of the finished module. The module was divided into eight units with behavioral objectives related to each unit, and two cartoon characters were created to stimulate interest and lend continuity to the modular units.

Following the Module Development Workshop, elements of the module were refined and completed. Consultations were held with faculty advisors at the Texas Woman's University and selected student groups. The completed module consisted of three volumes: Student Record Book, Teacher Implementation Plan, and Evaluation Instruments; a set of overhead transparency masters; and a 35 mm. slide and audio tape cassette presentation. The module was then prepared for pilot testing.

As an adjunct to the pilot testing, three other factors were considered that might affect the achievement level of students in the study: student experience on-the-job in a health occupation; teacher experience in an HOCT program; and the cognitive style, field-dependent-independent, of the students and teachers. Since the modular approach is designed to give students a choice in their means of reaching the behavioral objectives, factors other than the experimental module were considered relatively insignificant.

As a further in-depth study of the module, teachers were asked to evaluate its instructional material. They were to evaluate the different components of the module, as well as the modular approach to the subject matter. Results from this evaluation were collated, with data from the pilot testing, analyzed using multiple analysis of variance for the first three factors and a one-way analysis of variance for the fourth factor, cognitive style. Results of the data analysis and collating the teacher's evaluations were used in making module modifications.

Test items included in the Evaluation Instrument were prepared especially for this project. Comprehensive evaluation of these test items was not included in the study; therefore, certain irregularities in test format and item types were not revised as a part of this project.

Conclusions

This investigation sought to fill a need for validated instructional material in secondary vocational health occupations education. An experimental instructional module was developed based on behavioral objectives identified by teacher-coordinators in Texas HOCT programs. This module was then pilot tested using ten intact HOCT programs. Three other factors were analyzed for their effect on the learning achievement of students in the study. Analysis of data from this study led to the following conclusions:

1. Use of the experimental module was a significant factor in the achievement level of students. Scores of students using the module were significantly higher than those taught the same material in a more traditional manner. The modular approach appears to be a valid method of instruction in secondary health occupations education.
2. Students in a classroom with a teacher having previous experience teaching in an HOCT program scored significantly higher than students in classrooms having an inexperienced teacher. This finding has possible implications for HOCT teacher orientation, teacher certification, and in-service workshops. However, the small size of the group tested presents difficulties in determining the significant factors.
3. There was a significant interaction between students using the experimental module and in classrooms with experienced teachers. Further study is needed to ascertain the significant factors in this interaction.

4. The cognitive style of the student, field-dependent-independent, does not appear to be a significant factor in his achievement level. Test results indicated that students were almost equally divided into three groups: eighteen in Group 1, relatively field-dependent; twenty in Group 3, relatively field-independent; and twenty in Group 2, having characteristics of both field-dependence and field-independence. There was no significant difference in the achievement levels of these three groups. This finding lends credence to the proponents of the instructional module as an instructional unit suited to students with different ability levels or learning styles.
5. The cognitive style of the teachers, field-dependent-independent, when they differed from that of the student, did not appear to affect the student's achievement level. Scores of all teachers in the study placed them in Group 3, relatively field-independent. This finding was consistent with previous findings by Witkin and his associates. These studies indicated that whereas teachers in general tend to be field-dependent, teachers of science and mathematics tend to be field-independent.[1]

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[1] See discussion on page 37.

HOCT teacher-coordinators, to quality for their position, must be licensed or certified health professionals and all health-related professional programs have a strong science background.

6. Teachers in the experimental programs were unanimous in their enthusiasm for the module, and all indicated that they would use the module again, if given the opportunity. The instructional module, Orientation to the Health Care Delivery System, appears to be a validated instructional unit. It should become a part of the regular curriculum of each HOCT program in Texas.

Recommendations

As a result of this experimental study, the following recommendations are made:

1. Provisions should be made for continued production, validation, and modification of the experimental module.
2. Field test and/or follow-up studies should be done on the module: (a) the evaluation instruments should have further testing and modification, and (b) the revised module should be field tested.
3. This module should be tested using students in health occupations programs at different levels: adult, post-secondary, and professional.

4. The remaining eight modules begun by the Texas HOCT coordinators should be completed and tested.
5. Provisions should be made for a curriculum materials development center for secondary vocational health occupations programs in Texas. This center should foster a cooperative effort between local teachers, practicing health professionals, and health occupations teacher educators.

In summary, this study has indicated that curriculum modules for secondary health occupations education students can be developed based on teacher identified behavioral objectives. The modules can be validated using students in local HOCT programs and modified, if indicated. Provision should be made by the appropriate educational agency for a continuation of this developmental and evaluation process.

APPENDIXES

APPENDIX A

DESCRIPTION OF EXPERIMENTAL MODULE

DESCRIPTION OF EXPERIMENTAL MODULE

The experimental module, "Orientation to the Health Care Delivery System," was designed to offer the student several learning alternatives to meet the behavioral objectives of the module. The student and teacher have available printed material, transparencies to be used with an overhead projector, a 35 mm. slide and audio tape cassette presentation, and suggestions for guest speakers and field trips. Behavioral objectives included in the module are designed to achieve learning in the cognitive and affective domains.

The printed material incorporated into the module is presented in three volumes; a Student Record Book, Teacher Implementation Plans, and Evaluation Instruments. In this section a brief description of each volume is followed by a description of the instructional material found in each unit of the module. Further information on the module may be obtained from the Division of Occupational Research and Development, Department of Occupational Education and Technology, Texas Education Agency.

Student Record Book

The Student Record Book is designed to be used by the student and will be a record of his progress in meeting the objectives included in the module. Each unit contains the following information: (1) Objectives, (2) Criteria of Acceptance, (3) Instructional Concepts, (4) Learning

Alternatives, (5) References, (6) Supplies and Materials, and (7) Enrichment Activities. It also contains for each unit an Information Sheet, Vocabulary, and Study Questions. The teacher may obtain one book for each student, or the student may be asked to write his answers on a separate sheet of the paper and the book may be used by another student at a later date.

Teacher Implementation Plan

The Teacher Implementation Plan is designed to assist the teacher in planning the learning activities for students using the module, Orientation to the Health Care Delivery System. The volume is divided into eight units, and for each unit the Teacher Implementation Plan contains: (1) Prerequisite Capability, (2) Rationale, (3) Objectives, (4) Pre-Assessment, (5) Learning Alternatives, (6) References, (7) Supplies and Materials, (8) Enrichment Activities, and (9) Remediation. In addition the volume includes: a copy of the dialogue for the slide-tape presentation, a brief description of each slide, and thermofax transparency masters for use with an overhead projector. A local school may personalize the slide-tape presentation by using the dialogue contained in this volume and substituting slides made in the local area.

Evaluation Instruments

This volume contains a set of Pretest questions and a set of Posttest questions. All questions are multiple choice with a stem and five possible answers. Both sets of questions are designed to be used with machine gradable answer sheets. Questions related to objectives in the cognitive domain were designed not only to test knowledge of specifics but also to test comprehension, application, and analysis of known facts and principles. Questions related to objectives in the affective domain were designed to test the student's receiving or attending to phenomena, to responding or committing himself to the phenomena, and to valuing or assessment of worth of a phenomena.

Unit 1: Health Care Facilities

The objectives for this unit stated: "The student will be able to define 'health care facility' and be able to classify and describe several types of health care institutions according to type of service offered, ownership, and length of patient stay." This unit is seen as informative with learning primarily in the cognitive domain. Students are introduced to a large number of health care facilities with most of them classified according to type of service offered, ownership, and length of patient stay. Overhead transparencies are used to introduce the major concepts, and a slide-tape presentation was developed to reinforce these concepts.

Unit 2: Health Care Facilities in the Local Area

The objectives for this unit stated: "The student will be able to list the names of the health care facilities in the local area and classify them according to services offered, ownership, and length of patient stay." This unit presents an opportunity for students to become acquainted with health care facilities in their local area and in nearby metropolitan areas. For this unit students are directed to obtain information from the local and metropolitan telephone books. Local community health service agencies are also a source of information for this unit. Questions with this unit are designed to test the student's judgment in the selection of the type of agency needed for specific health care problems.

Unit 3: Health Care--Primitive to Modern

The stated objective for this unit is: "The student will be able to describe in writing the important developments in the history of health care from primitive to modern times." In this informational unit students are introduced not only to the historical persons involved in the evolution of health care but also to the health care concepts which have evolved throughout the ages. Permission was obtained by the investigator to use copies of original paintings and research material developed by Parke-Davis and Company for "Great Moments in Medicine," printed from 1957-1964. Permission was also obtained to photograph copies of original water color paintings depicting the life of Florence Nightingale, commissioned by the Reader's Digest Company.

As in Unit 1, the concepts are introduced through the use of overhead transparencies and reinforced through a slide-tape presentation. Questions in this unit are designed to test the student's understanding of the positive and negative concepts associated with the delivery of health care throughout the history of man.

Unit 4: Health Care Personnel

The objectives for Unit 4 are: "The student will be able to list the names of the different departments in an acute care hospital and briefly describe the duties of personnel in these departments." Learning planned for this unit is in the cognitive domain. The basic concepts concerning hospital personnel are presented from two different perspectives: (1) the percentage of time spent in direct patient care, and (2) the amount of education required for personnel to qualify for licensure or certification as a health professional or health care technician. Overhead transparencies are used to present basic concepts. These concepts are reinforced through a slide-tape presentation. Cartoon characters are interspersed with posed photographs of hospital personnel in the slide presentation. This mixture serves to maintain students' interest and at the same time help them relate to the actual hospital setting.

Unit 5: Internal Organization of a Health Facility or Agency

The objective for this unit stated: "The student will be able to describe the internal organization of a large and a small health care facility." Planned learning for this unit is in the cognitive domain, with students being introduced to organizational charts for large and small health care facilities. Proprietary, non-profit, and government supported agencies are compared as to their organizational structures. The organization of voluntary health care agencies is also presented. Overhead transparencies, as well as a slide-tape presentation, are available for student use in this unit.

Unit 6: Major Health Problems

This unit was developed to introduce students to health problems on the state and national, as well as the international, levels. The objectives are stated: "The student will be able to list and give a brief description of the major health problems in the United States and the major health problems world-wide." Overhead transparencies are used to present the major concepts. Students are referred for additional information to outside sources, such as World Health Organization, United States Public Health Service, and the state departments of public health.

Unit 7: Illness Interferes With Meeting Basic Human Needs

Planned learning for this unit is in both the cognitive and affective domains. The stated objectives are that: "The student will be able to describe basic human needs as outlined by Abraham Maslow and give examples of how illness interferes with a person meeting these basic needs." Maslow's concept of human needs was used since it is easily understood by students with little knowledge of basic psychological principles. Maslow views human needs as a hierarchy, or pyramid, beginning with physiological needs and leading to self-fulfillment. The students who are involved in the delivery of health care need an understanding of their own emotional needs, as well as the emotional needs of their patients. This unit introduces Maslow's concepts through the use of overhead transparencies and a slide-tape presentation illustrating concrete examples of these concepts. Examples presented are of hospitalized patients who are threatened with the loss of their basic needs due to illness. Questions in this unit present the students with specific patient situations and give the students an opportunity to use their judgment regarding meeting the patient's emotional needs.

Unit 8: The Health Worker As An Assistant In Meeting Patient Needs

This unit was designed to help the student answer the question, "Where do I fit into this picture of the health care delivery system?" The unit objective stated: "The student will be able to perceive himself as a person offering assistance to those in need of health care." Concepts dealing with the relationship of the health care worker to the patient are presented using overhead transparencies. The accompanying slide-tape presentation introduces four situations which are typical of encounters between the patient and health assistant. The teacher is asked to view the situation with the students, then lead a discussion dealing with the problems presented by the film. The situations depicted in the film do not require judgments based on a depth of technical information or experience: they do, however, present examples of emotional problems of the patient and his family which are encountered by health care personnel at all levels. The ability to handle the emotional problems associated with illness is considered as important as the ability to master the technical information and skills required for a person delivering health care.

APPENDIX B

TEACHER IMPLEMENTATION PLAN

FOREWORD

Students enrolled in an occupational program designed to prepare them to function as health care professionals, technicians or assistants, must have a basic knowledge of the system within which they are expected to function.

This module is designed for beginning students: those who have had little previous experience as health workers. Many subjects are introduced that the instructor will want to expand later in the program, such as: health careers, hospital departments and personnel, health care services, organizational structure and ethics. It is not the purpose of this module to give extensive coverage to these subjects. Students are introduced to these subjects through instructional methods designed to gain their attention and serve as focal points for later reference.

The material covered in this "Orientation to the Health Care Delivery System" has been compiled in a modular form. Instructional modules are among the most popular form of individualized instruction developed during recent times. An instructional module may be defined as, "a set of learning activities intended to assure the student's obtaining certain stated objectives or competencies". Instructional modules are seen as multi-faceted—offering several learning alternatives, so that the student may reach the objectives in a manner which is most meaningful to him. The instructional module is composed of the following elements: (1) a rationale; (2) a statement concerning prerequisites; (3) a set of objectives; (4) a description of pre-assessment procedure; (5) a description of learning alternatives provided the student; (6) a description of post-assessment procedures; and, (7) a description of remedial procedures.

The module is designed to be used by a group of students with the instructor acting as a facilitator and resource person. The slide-tape portion of the module may be used by an individual student to review certain units or to gain information missed during the class presentation.

The module is divided into eight units. The Teacher Implementation Plan contains: the information listed above for each unit of the module; the references for each unit; a list of the equipment, supplies and materials needed; the masters for making thermofax transparencies; and, the dialogue of the slide-tape segment of the unit. All units except Unit 2, "Health Care Facilities in the Local Area", have as learning alternatives a set of overhead transparencies and/or a slide-tape presentation. Unit 2 is designed to be an exploration of the health care facilities located in the community adjacent to the school.

The Student Record Book contains the behavioral objectives, the criteria of acceptance, instructional concepts, learning alternatives, references, supplies and materials needed and enrichment activities. An information sheet with vocabulary list, study questions and space for listing student experiences in meeting the behavioral objectives are also included.

Module: Orientation to Health Care Delivery System

Unit 1: Health Care Facilities

Prerequisite Capability: Enrollment in a Health Occupations Education program

Rationale: In order to work effectively in a health occupation, the student must know and be able to explain the functions and list the services of health care facilities involved in the delivery of health care. This module is designed to increase the student's abilities in this regard.

Objective: The student will be able to:
Define "health care facility" and describe several types.
Classify health care organizations according to type of service offered.

Pre-Assessment: the pre-assessment will consist of a pencil-and-paper test to be administered and scored by the instructor.

Learning Alternatives:
1. Instructor will present lecture using overhead transparencies to illustrate basic points.
2. Student will list activities in Student Record Book.
3. Student will view a slide-tape cassette presentation covering basic information in the unit.

References:
Anderson. C.L. Health Principles and Practice, sixth edition. The C.V. Mosby Co. pp. 345-409.
Caldwell, Esther. The Health Assistant, pp. 1-8.
French, Ruth M. The Dynamics of Health Care, second edition, pp. 23-44.
Sloane, Robert M. and Beverly L. A Guide to Health Facilities Personnel and Management. pp. 16-20.
Tabers, Clarence W. Taber's Cyclopedic Medical Dictionary,

Supplies and Materials:
Tape cassette player, slide projector, overhead projector, Student Record Book, pencil, pen and paper.

Enrichment Activities:
Field trips to health facilities in local community.
Guest speaker representing a local voluntary health agency.
Individual or group trips to obtain brochures from

local health care agencies.
Research report on public health organizations or specialized health care agencies not located in the local community.

Remediation:

1. Read section in reference books regarding health care facilities.
2. Review slide-tape presentation on "Health Care Facilities".

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Script For Audio Tape

Unit 1: Health Care Facilities

Slides	Dialogue
1 Module title	"Orientation to the Health Care Delivery System"
2 Ancient medical practice	Man's need for health care has been evident from early history. Ancient civilizations having no written language show signs of the treatment of disease.
3 Caduceus symbol	From early times persons involved in the delivery of health care have been identified by the use of distinctive symbols. In Greece the caduceus, or "herald sign", became such a symbol. The caduceus, represented by a staff with two entwined snakes and two wings at the top, symbolized the early Greek physician.
4 Caduceus with Rudy and Judy	In this section the caduceus is used to introduce the two principle characters of this module, Rudy and Judy Rattler.
5	Rudy and Judy will be your guides through a tour of the health care delivery system.
6 Unit 1 title	Unit 1: Health Care Facilities
7 Credits	Credits

8 Group of people	People!
9 More people	All kinds of people!
10 People with crutches, bandages, etc.	What do people do when they are ill? Where do they go? Most of them go to one of two places.
11 Doctor's examining room	They go to the doctor's office
12 Hospital emergency entrance	Or, they go to the hospital
13 Cartoon: doctor sends patient to hospital	Or, sometimes they go to both.
14 Patient in hospital	A person who is ill and in need of health care seeks to obtain that care through the health care delivery system.
15 List of health care facilities	This unit will consider this system and the facilities, institutions and agencies that are a part of the system.
16 Patient in hospital with nurse	Whether the person enters this system as a patient in need of health care: or, as a member

of the health care team, ready to assist the patient by giving health care, it is necessary to understand the elements that make up this system and how the individual finds his place in this system.

17
Small
hospital

A hospital may be defined as, "an institution where the sick or injured are given medical or surgical care." Hospitals are the type of health care facility with which most of us are familiar.

Hospitals come in all sizes--having as few as ten beds,

18
Large
medical
complex

or, thousands of beds.

19
Chart:
classification of
hospitals

Hospitals may be classified in three ways: according to the kind of ownership and control; according to the type of patient treatment; and, according to the length of a patient's stay.

20
Chart:
government
or non-government

The classification of hospitals by ownership simply means that they are government supported or non-government supported.

21
Cartoon:
city hall

Government supported hospitals can be owned by a city, county or state, or by the federal government.

22
Cartoon: veteran entering hospital

All government hospitals are supported mostly by tax funds and may be general hospitals offering comprehensive medical and surgical care.

23
State mental hospital

Or, they may be special hospitals offering care to meet special needs such as, psychiatric hospitals and tuberculosis sanitariums.

24
Church owned hospital

Hospitals may be non-governmental, that is, privately owned. Churches own hospitals; community groups maintain ownership; and, many are owned privately by individuals or corporations.

25
Proprietary hospital

A hospital may be operated as a voluntary nonprofit institution or may be operated "for profit." If operated for a profit, it is called a proprietary institution.

26
Chart: according to type of patient treatment

Hospitals may also be classified according to type of patient treated. There are basically two types: general and special. The one with which we are probably most familiar is the general hospital in which a variety of illnesses are treated and surgeries performed. The other kind of hospital is the special hospital.

27
Psychiatric hospital

There are special hospitals which treat psychiatric patients; others treat only children or expectant mothers; and, there are many other kinds.

28 Cartoon: patient and doctor	Another method of classifying hospitals is by the average length of the patient's stay.
29 Chart: long term and short term	Short term hospitals are those in which the patient stays for less than thirty days. Long term hospitals are those in which the patient stays more than a month.
30 Cartoon: patient in hospital bed, patient in wheel-chair	Another way to state this is that short term hospitals are general hospitals where the average stay of patients is eight to eighteen days and represent the acutely ill.
	Long term institutions, sanitariums, leprosariums, and rehabilitation centers, contain the chronically ill—those people hospitalized for psychiatric, rehabilitative, or communicable disease care such as leprosy or tuberculosis.
31 Nursing home	Other types of long term institutions are: extended care facilities and nursing homes. These facilities were developed to serve patients after the acute phase of their illness is over.
32 Patient in wheel-chair	Nursing homes serve patients who need minimal care from a physician but who require nursing care, custodial care, or both.
33 Diagram: short term long term	Approximately 80% of all hospitals are short term institutions and account for 95-98% of

of all patient admissions.

However, on any given day, two-thirds or 62% of all hospitalized patients are in the long term facilities.

34 Cartoon: patient pre-pays for treatment

Other types of health care facilities include comprehensive health care plans in which prepayment, or payment for services on a regular monthly basis, is the method of financing.

35 Medical clinic

The patient is asssured of qualifying for preventive care and treatment of illness. The emphasis is on preventive health care. The Kaiser Foundation Hospitals are an example of this type of facility.

36 Dental office

Unions sponsor plans which provide comprehensive family medical care. One of these is the Labor Health Institution of St. Louis which carries its own insurance and includes dental and psychiatric care.

37 Cartoon: physician and patients

Besides the hospital of whatever classification, the physician in private practice can be classified as a "health care facility."

38 Chart: solo, partnership, clinic

The physician may practice alone, he may be in partnership with one or more other physicians, or,

39 Clinic with many physicians	he may belong to a large group of physicians practicing in a clinic, "a group practice in which several physicians work cooperatively."
40 Cartoon: pre-paid laboratory test	There are other organizations concerned about our health. These are organizations that seek to prevent or detect disease in the early stages. These organizations sponsor mass screening tests, such as chest x-rays and urine tests to discover disease conditions before they cause symptoms in the patients.
41 Medical laboratory	These testing programs may be single phase or multi-phasic. Multi-phasic screening is a multipurpose examination utilizing the latest developments in laboratory testing, x-ray technology, electrocardiograms and a variety of other tests to determine whether any signs of disease are present that might be detected so that early treatment can be given.
42 Lung Association van	A number of organizations sponsor this type of testing: for example, the Lung Association supports x-ray screening vans, the Diabetic Association sponsors screening tests for diabetes. Other testing centers are located near an industrial plant and provide testing services to all employees of the factory.

43 Cartoon: community health center	Neighborhood health centers are found throughout the country and offer services to the residents of an immediate geographic area. They are usually supported by federal money and located in low income areas.
44 Venereal disease information	In a democracy, such as the United States, the primary responsibility for health care rests with the individual himself. Yet in a complex society, few persons have the resources needed to deal with all health conditions that affect him.
45 School bus with immunization reminder	To supplement individual efforts, public health organizations have been established to protect and advance the health of mankind.
46 Letterheads: world, national, state health organizations	These operate on the international, national, state, and local levels.
47 Local health department	Public Health Departments may be federal, state, or local
48 Water purity	These public health facilities disseminate health information,
49 Public health vehicle	provide sanitation standards,

50
Meat inspector

and offer food inspection services.

51
Family planning center

They frequently operate clinics for venereal disease, well-baby clinics, and family planning centers.

52
List of other facilities

Other health care facilities include: mental health clinics, drug-control centers, school health centers,and occupational health centers. These may be operated by government agencies, by private foundations, or by voluntary agencies.

53
Definition, "health care facility"

We may define a health care facility as, "an institution, operated by government or non-government control, where people are treated for illness and/or the prevention of illness."

54
List of health care facilities

We have seen the many different institutions and agencies that come under the heading, "health care facility": hospitals, pre-paid health care plans, diagnostic screening centers, neighborhood health centers, public health agencies, drug control centers, school health services, mental health centers, and occupational health services.

55
Classification of hospitals

Hospitals may be classified in three ways: according to ownership and control; according to type of patient treatment offered; and, according to length of patient stay. Hospitals may be government supported and vary from large general hospitals to small hospitals offering in-patient hospital care for specific disease conditions.

56 Private hospital — Non-government supported hospitals are operated by private non-profit agencies, religious bodies and by an individual or group operating for a profit.

57 Psychiatric hospital — Hospitals may be general, offering a broad range of medical and surgical services, or special, treating patients with specific diseases or a specific age group.

58 Convalescent center — Hospitals offering in-patient care may be geared for short term or long term treatments.

59 Medical clinic — Other health care facilities are set up to offer care for patients not confined to a hospital, out-patients. From the physician in private practice,

60 Medical laboratory — to the screening programs, facilities include those offering health care to persons with a specific need, such as:

61 List of other facilities — school health programs, drug control clinics, and occupational health services. Each of these facilities is a part of the health care delivery

system offering comprehensive programs for the promotion of health in the United States.

62 Cartoon: Judy asks question — What facilities are in your neighborhood?

63 Acknowledgements

5

1-1

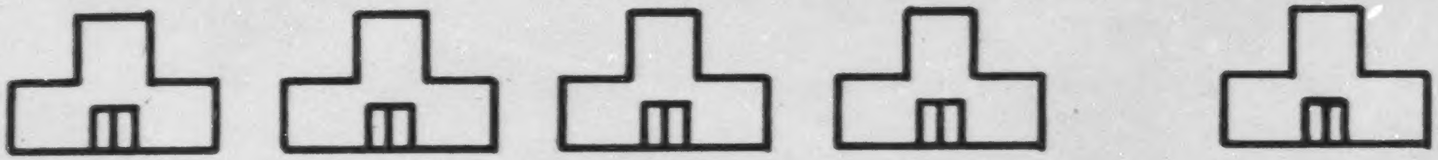
CLASSIFICATION OF HOSPITALS

- Ownership
- Treatment (type of patient)
- Length of stay

CLASSIFICATION OF HOSPITALS

1. OWNERSHIP
    - a. GOVERNMENT SUPPORTED
    - b. NON-GOVERNMENT SUPPORTED
2. TREATMENT (type of patient)
    - a. GENERAL
    - b. PSYCHIATRIC
    - c. CHILDREN'S
    - d. MATERNAL, etc.
3. LENGTH OF STAY
    - a. SHORT-TERM INSTITUTIONS (Less than 30 days)
    - b. LONG-TERM INSTITUTIONS (More than 30 days)

LENGTH OF HOSPITAL STAY



SHORT TERM	LONG TERM
80 % of all Hospitals	20 % of all Hospitals
95 % of all Patient Admissions	5% of all Patient Admissions
38% of Patients at Any One Time	62% of Patients at Any One Time

PHYSICIAN IN PRIVATE PRACTICE

- Solo
- Partnership
- Clinics

PRE-PAID HEALTH CARE

- Kaiser Foundation Health Plan
- Union-sponsored Family Health Plan
- Multi-phasic Screening

PUBLIC HEALTH DEPARTMENTS

- International-World Health Organization
- Federal-Department of Health, Education and Welfare
- State Departments of Public Health
- Local-City and County Health Departments

OTHER HEALTH CARE FACILITIES

- Mental Health Clinics
- Drug Control Clinics
- School Health Centers
- Occupational Health Centers

HEALTH CARE FACILITY

An institution operated under government or non-government ownership where people are treated for illness and/or the prevention of illness.

Module: Orientation to the Health Care Delivery System

Unit 2: Health Care Facilities in the Local Area

Prerequisite Capability: Complete Unit 1.

Rationale: In order to function effectively as a health worker in the local community and be able to secure adequate personal health care the student must be able to name the health care agencies in the local community and to describe the services offered by each, and the financial support of the agency.

Objective: The student will be able to:
List the names of the health care facilities in the local community.
Describe the services offered by the local health care facilities.

Pre-Assessment: The pre-assessment will consist of a pencil-and-paper test to be administered and scored by the instructor.

Learning Alternatives:

1. Using the yellow pages of the telephone book, the student will compile a list of the hospitals, nursing homes and health agencies. Using the regular section of the telephone book, the student will locate health care facilities listed under governmental agencies: city, county, state and national.
2. Students as individuals or small groups will visit local health care agencies, secure information and brochures and give reports of their visits to the class, plus written reports.
3. Students will record information from all sources in the Student Record Book.
4. Students will obtain information from libraries or from the original agency regarding types of health care agencies not found in the local community.
5. Instructor will secure the services of one or more representatives of local health care agencies to present a brief description of the services offered by the local agencies.

References:

Telephone Directory--local and metropolitan
Anderson, C.L. Health Principles and Practice. sixth edition, pp. 364-411.
French, Ruth M. The Dynamics of Health Care, second edition, pp. 23-34.

Sloane, Robert M. and Beverly L. A Guide to Health Facilities, Personnel and Management, pp. 16-20.

Equipment, Supplies and Materials:
Telephone books, local and metropolitan
Student Record Book

Enrichment Activities:
Field trips to local hospitals, nursing homes, public health agencies and voluntary health service agencies
Guest speakers representing several local health care agencies

Post-Assessment:
Terminal assessment will consist of a pencil-and-paper test to be administered and scored by the instructor.

Remediation:
Re-read sections in reference books regarding health care facilities. Match these descriptions with agencies in the local telephone directory.

Module: Orientation to the Health Care Delivery System

Unit 3: Health Care--Primitive to Modern

Prerequisite Capability: Completion of Unit 1.

Rationale: In order to work effectively in a health occupation and make progress in acquiring technical information regarding health care, the student should know how health science has developed from the beginning of written history to the present time.

Objective: The student will be able to:
Describe in writing important developments in the progress of health science from primitive medicine to modern times.

Pre-Assessment: The pre-assessment will consist of a pencil-and-paper test to be administered and scored by the instructor.

Learning Alternatives:
1. Instructor will present lecture using overhead transparencies to illustrate basic points in the unit.
2. Student will view a slide-tape cassette presentation covering the basic information in the unit.
3. Student will record learning activities in Student Record Book.

References:
Bender, George A. and Robert A. Thom. Great Moments in Medicine.
French, Ruth M. The Dynamics of Health Care, second edition, pp. 11-13.
Sloane, Robert M. and Beverly L. A Guide to Health Facilities, Personnel and Management, pp. 3-15.
Taber, Clarence. Taber's Cyclopedic Medical Dictionary.

Equipment, Supplies and Materials:
Overhead projector, tape cassette player, slide projector, Student Record Book pencil, pen and paper.

Enrichment Activities:
Field trips to modern general hospital and modern public health center.
Field trip to museum featuring a section on the history of medicine.
Research reports on outstanding individuals in the

history of medicine, nursing, bacteriology or chemistry.

Post-Assessment:

The terminal assessment will consist of a pencil-and-paper test to be administered and scored by the instructor.

Remediation:

For students who fail the post-assessment, one or more of the following courses of action should be taken.

1. Review the slide-tape presentation
2. Write a research report on the era or an individual in the section not learned.

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Unit 3: Health Care - Primitive to Modern

Slides	Dialogue
1 Module title	"Health Care - Primitive to Modern"
2 Credits	Credits
3 Health care of the past	People from many cultures have contributed to the development of health care and to the organization of health care facilities. This unit will consider some of these individuals and cultures. By looking at what has happened in the past, an understanding can be gained of the delivery of health care today, the role of the sick person in modern society, and how the health assistant fits into this picture of the health care delivery system.
4 Hotel Dieu, Beaune, France	From prehistoric times up to the present era many changes have occurred in health care facilities and in the way people feel about the care of the sick. Many health care concepts developed during an earlier age have endured up to the present time. This unit will trace the development of some of these concepts, both positive and negative.

5
Temple of
Aesculapius

Among the earliest health care facilities were the temples of Aesculapius which appeared in Greece around 350 B.C. These temples were founded in honor of Aesculapius,
whom legend says was such a skillful physician that he was a threat to the power of the gods. The temples began as pilgrimage sites for patients but later became centers for the training of physicians. Patients were screened before admission and those who could not be cured were banished. After admission the patients were scrubbed clean and dressed in white linen. Treatment consisted of "dream therapy", induced by sedative drugs, in which Aesculapius appeared and healed their ailments. Tame holy snakes were also used as therapeutic agents.
The priest-physicians treated the whole person: mind, body, and spirit. Planned therapy included bathing, massage, and outdoor recreation with visits to the theatre providing emotional relief.

6
Hippocrates

Greek medicine established between 500 B.C. and 500 A.D. dominated medical practice for the following 1,000 years. Evidence of this is the predominance of Greek terminology in medicine today.

Symbolic of this period is Hippocrates, the "Father of Medicine." Hippocrates, as most Greek physicians, was trained as an apprentice. The Oath of Hippocrates reflects the high ethical standards of these apprentice-physicians. The emphasis was on clinical observation with treatment primarily designed to assist nature. Diet was of primary importance. Drugs were used only when diet failed and surgery was used as a last resort. Hippocrates used observation and examination of the patient, including palpation, "the act of feeling by the sense of touch", and auscultation, "the act of listening to obtain physical signs", to determine the patient's condition.

Here Hippocrates examines a young patient and attempts to soothe a worried mother.

7
Roman army camp

Grecian medicine spread to Rome prior to the Christian era. The Romans, as great conquerors and administrators, took the practice of medicine to the battlefield. The Roman generals noted that the lives of soldiers were saved if they were given first aid on the battlefield and a place of convalescence near the place of conflict. The first army hospital was a portable series of tents.

8
Rhazes in
Persia

As the Greek and Roman empires declined, many of their practices were preserved by the Arabs during the Middle Ages. A famous Arabian physician was the Persian, Rhazes.

Rhazes, who lived from 865 to 925 A.D., was noted for his keen observation and inventiveness. He was the first to describe smallpox and measles, to observe the reaction of the pupil of the eye to light, and to publish a text on children's diseases.

The Arabs emphasized the use of drugs more than the Greeks. They began the profession of pharmacy and established a strict code of ethics for the pharmacist.

9
Susruta in
India

A common form of punishment in ancient India was the cutting off of an ear. As a result of this practice, there developed a need for a surgeon who could fashion an artificial ear. The famed Hindu surgeon, Susruta, is depicted in the home of a noble of ancient India about to begin an otoplastic operation. Plastic surgery was practiced in India more than 2,000 years ago.

10
Trephining
in Peru

In Peru, far removed from Europe, medical practice developed independently. A Peruvian civilization preceding the Inca Empire (500 B.C. to 100 A.D.) practiced a procedure called "trephining", defined as, "a surgical operation in life on the head and skull." Since the Peruvians had no written language, it is impossible to know why this operation was used so frequently. It may have begun to repair skull fractures caused by blows from clubs and hatchets. There is also evidence that it was used for headaches and mental disorders. Skulls found in Peru indicate that healing followed the operation.

11
Guinea pig

The guinea pig was also used in Peruvian medical practice. The hapless guinea pig was held over the affected part of the patient to absorb the disease-causing principle, then slaughtered and studied for diagnosis.

12
Cinchona
leaves

The Peruvians used medicinal plants in the practice of healing. Among the better known were coca leaves, source of cocain and cinchona bark, source of quinine.

13
Hotel Dieu,
Beaune,
France

Christianity became involved in health care following the decline of the Roman Empire. The early Christians believed that worldly medicine was useless and frowned on the use of drugs. Faith in the healing power of Christ, practicing brotherly love and having compassion for all men led them to believe that those who helped the sick were good Christians and salvation was their reward.

The work "hospital" is rooted in the Latin word "hospes", meaning "guest or host." Christian hospitals were much like hotels or hostels, where the homeless and the traveler would come to recuperate, to be fed, and to rest.

Representative of medieval hospitals is the Great Room of the Poor, a part of Hotel Dieu of Beaune, France. Founded in 1443 and still offering care for the sick, the aged, and the indigent, it combines modern professional hospital service with the preservation of the fifteenth century atmosphere. The sisters of Sainte Marthe, garbed in traditional habits, have served in this hospital for more than five hundred years.

14
Paracelsus
in his
laboratory

During the Renaissance (14th and 15th centuries) and the Reformation (16th and 17th centuries) the control of the church over medicine and hospitals was lessened. The Renaissance underlined scientific medicine. Typical of this period is a man who called himself, Paracelsus. Paracelsus developed many medicinal formulas in his laboratory. He also wrote many articles: serious medical writings and attacks against the medical practices of his day. Labeled "genius" by some, "quack" by others, his medical effort got results, and patients liked him. He attacked medieval "sacred cows" and helped turn medicine from unproved theories to rational research.

15
Anatomical
dissection

The study of anatomy by dissection of human bodies was a practice that gained favor during the Renaissance. Andreas Vesalius of Brussels was the first great teacher of anatomy from natural observations. During the time that he was the professor of Surgery and Anatomy at the University of Padua, 1537-1543, he conducted many anatomical demonstrations on human bodies. Vesalius was the first to break with anatomical texts written in the first century. His works have become classics in medical literature.

16 Jenner vaccinating patient

During the 18th century, physicians began to put into practice the discoveries made by laboratory scientists. The use of vaccines and immunizations to guard against disease was one of these developments. The first vaccination against smallpox was performed by Edward Jenner, English rural physician, in 1796. Drainage from a cowpox blister on the hand of a dairy maid was inserted into scratches on the arm of eight-year-old James Phipps in an effort to build up his body's immunity against smallpox. Two later attempts to induce infection from smallpox were unsuccessful, thus proving that a person could knowingly build up the body's immunity to a specific disease.

17 Pasteur in laboratory

Louis Pasteur, the famous French chemist and biologist (1822-1895), was the first to prove that microbes are reproduced from parent organisms and do not result from spontaneous generation. His careful laboratory experiments brought proof of the germ theory of disease which transformed medical practices. From Pasteur's laboratory came vaccines for virulent diseases, solution of many industrial biochemical problems, and founding of the Pasteur Institute.

18 Military hospital

As noted earlier with the development of Roman army hospitals, many medical advances were perfected in military hospitals. Military hospitals were set up along the route of the Crusades in the Middle Ages.

19 Map of the Crimea, 1853

At the time of the Crimean Was in 1853, scientific medical knowledge of kidney, heart, and chest diseases was wide-spread.

20 Military hospital

Florence Nightingale was a volunteer nurse with the British Army during the Crimean War. She was a woman of great warmth, practicality, and organizational ability who effectively merged scientific medicine with humanitarian care of hospital patients. With Florence Nightingale the idea that medicine was more than a technique or a scientific discipline was reinforced.

21 Florence Nightingale

Florence Nightingale reorganized the public health system of Britain and India. She promoted the profession of nursing and established the first nursing school at St. Thomas's Hospital in London. In the United Stated we celebrate her birthday, May 12, as National Hospital Day.

22
Anesthesia demonstration

An important milestone in the control of the pain and suffering which occurs with a surgical operation took place at Massachusetts General Hospital in 1846. On this date William T. G. Morton, a Boston dentist, used the inhalation of ether on a patient of Dr. John C. Warren to prepare him for minor surgery. This was not the first attempt at using a gas or vapor to induce anesthesia but it was the most successful and widely publicized. Within a year of the demonstration at Boston, ether was being used world-wide to conquer the pain which accompanies surgical operations.

23
Doctor at bedside

Health care is ancient, yet ever new. Today's physician has the scientific discoveries and advances resulting from the work of countless thousands of dedicated men and women throughout fifty centuries to guide him in his diagnosis and treatment of disease.

24
Temple of Aesculapius

Health care has progressed from the primitive concept of banishment for the sick, through the devoted care of the sick by priests of healing, to the succor of the ill and indigent by devoted Christians. The Greeks, through the temples of

Aesculapius and the ministerings of Hippocrates and his followers, had a lasting influence on the development of health care.

25
Susruta
in India

This unit has shown how isolated medical practitioners, such as Susruta in India and Rhazes in Persia, developed special skills to meet the needs of the civilization in which they lived.

26
Trephining
in Peru

Some medical developments took place isolated from other civilizations, for example, the medical practices in Peru 500 years before the birth of Christ.

27
Roman army
camp

War and religion together have been responsible for the evolution of health care facilities. Beginning with the early Roman army hospitals, through the establishment of hospitals by religious groups and the advances made by Florence Nightingale during the Crimean War,

28
Modern
hospital

has come the concept of the modern hospital.

29
Paracelsus
in laboratory

Scientific study contributed to the great advances made in health care during the past two centuries. Careful observation and recording of facts, in addition to, experiments with drugs, chemicals, and other substances in the laboratory has led to vast improvements in the diagnosis and treatment of disease.

30
Jenner
vaccinating
patient

Human dissection by Vesalius, use of smallpox vaccine by Edward Jenner, sterilization of milk and wine by Pasteur, and the use of ether as an anesthetic by William T. G. Morton are but a few of the discoveries that have contributed to the vast store of medical knowledge of today.

31 Acknowledgements.

PRIMITIVE HEALTH CARE CONCEPTS

Negative

- SICK PERSON IS SHUNNED
- ILLNESS IS PUNISHMENT FOR SINS
- DISEASE OR DEFORMITY MAKES A PERSON UNWORTHY
- ILLNESS INTERRUPTS THE RHYTHM OF LIFE

Positive

- TREAT THE TOTAL MAN: MIND, SPIRIT AND BODY
- CARE FOR THE SICK IS PARTICIPATION IN GRACE

EARLY DEVELOPERS OF HEALTH CARE

GREEKS -

HIPPOCRATES, GALEN

ROMANS -

MILITARY MEDICINE

ARABS -

RHAZES

INDIANS -

PLASTIC SURGERY

PERUVIANS-

TREPHINING

HEALTH CARE IN MIDDLE AGES AND RENAISSANCE

Christian Hospitals

Scientific and Laboratory Studies

Dissection to Learn Anatomy

SCIENTIFIC DEVELOPMENTS

SMALL POX VACCINATION - EDWARD JENNER

PROOF OF GERM THEORY - LOUIS PASTEUR

ORGANIZATION OF MILITARY HOSPITALS AND PUBLIC HEALTH AGENCIES
- FLORENCE NIGHTINGALE

GENERAL ANESTHESIA - WILLIAM MORTON
JOHN WARREN

MODERN HEALTH CARE FACILITIES
Three Purposes

Patient Care

Education of Health Care Personnel

Research

Module: Orientation to the Health Care Delivery System

Unit 4: Health Care Personnel

Prerequisite Capability: Complete Units 1 and 2.

Rationale: In order to work effectively in a health occupation, the student must be able to name and describe the function of health care personnel employed in a given health care institution.

Objective: The student will be able to:
List the names of the departments in an acute care general hospital and briefly describe the duties of the personnel in each department.

Pre-Assessment: The pre-assessment will consist of a pencil-and-paper test to be administered and scored by the instructor.

Learning Alternatives:

1. Instructor will present a lecture using overhead transparencies to illustrate basic points in the unit.
2. Student will view a slide-tape cassette presentation covering the basic information in the unit.
3. Student will record learning activities in Student Record Book.

References:

Caldwell, Esther. The Health Assistant, pp. 1-5.
French, Ruth M. The Dynamics of Health Care, second edition, pp. 67-81.
MacEachern, Malcolm T. Hospital Organization and Management, third edition, Physician's Record Co., Chicago: 1957, pp. 815-838.
Sloane, Robert M. and Beverly L. A Guide to Health Facilities, Personnel and Management, pp. 23-101.
Taber, Clarence. Taber's Cyclopedic Medical Dictionary.

Equipment, Supplies and Materials:
Overhead projector, tape cassette player, slide projector, Student Record Book, pencil, pen, paper.

Enrichment Activities:
Field trips to modern general acute care hospital or long-term government supported hospital.
Guest speakers representing several different health occupations personnel.
Obtain career information on careers from Texas Health Careers, Health Careers Guidebook.

Script For Audio Tape

Unit 4: Health Care Personnel

Slides	Dialogue
1 Module title	"Health Care Personnel"
2 Cartoon: hospital personnel	Persons with a variety of skills are involved in the delivery of health care in a modern general hospital.
3 Cartoon: patient care personnel	Some are involved primarily in direct patient care, including: nurses, physical therapists, and respiratory therapists.
4 Cartoon: laboratory, x-ray, and surgical personnel	Others spend part of their time in direct patient care and part of their time performing special procedures. In this category are: medical laboratory technicians, radiologic technicians, dieticians, and operating room technicians.
5 Cartoon: housekeeping personnel	Another group of persons is involved in patient services that do not require direct contact with the patient. These include: housekeeping personnel, maintenance workers, business office personnel, and medical record personnel. Let's follow Rudy Rattler as he makes a trip to the hospital and meets many of these people.

6 "The Hospital"	"The Hospital" Starring Rudy and Judy Rattler.
7 Credits	Credits
8 Cartoon: Ambulance with Rudy	Judy: "Rudy, I told you that you shouldn't have tried to lift that rock with your rattler!" Rudy: "As usual, you're right. I wish I'd listened to you this time, though."
9 Emergency entrance	Judy: "Here we are at the hospital, Rudy!" Rudy: "Good! I really need something to relieve this pain in my rattler."
10 Cartoon: examining room	Judy: "Now the people who work in the emergency room will take you to a treatment room so that the doctor can examine your rattler." Rudy: "The nurse told me they would have to take an x-ray to see if it's broken. I certainly hope it isn't!"
11 X-ray department	Judy: "In the x-ray department a radiologic technician will make a picture of your rattler and then a specialist, called a radiologist, will read the x-ray." Rudy: "Oh, Judy! You always seem to know about everything! How did you get to be so smart?" Judy: "It's simple, 'swivel hips', I asked the nurse!"

12
Cartoon:
Rudy with
x-ray

Judy: "What did they find out from the x-ray, Rudy?"

Rudy: "After the radiologist studied my x-ray, he told me I should stay in the hospital overnight. Oh, I'll never get back to the playground!"

Judy: "Don't be silly, Rudy! There are lots of trained people in the hospital who will take good care of you while you're here."

13
Cartoon:
admission
office

Judy: "You don't have a thing to worry about, Rudy. Your mother has gone down to the admission office, which is a part of the business office, to check you in; and, while she's gone, I'm going to stay here right by your side."

Rudy: "Oh, yuck!"

14
Hospital
business
office

Rudy: "Hey, Judy! I must be pretty important, they sure filled out a lot of forms about me. I have a room and my very own identification number."

Judy: "Oh, Rudy! Don't you know anything? They have to fill out those forms for every patient who comes into the hospital. All patients have to have an ID number so that the medical records department and other hospital departments won't get their records mixed up."

15 Cartoon: housekeeping personnel	Rudy: "At last, I get to go to my room!" Judy: "Rudy, you shouldn't be so impatient. While you've been waiting, the people in the housekeeping department have been getting your room clean and ready for you."
16 Hospital janitor	Judy: "The housekeeping personnel are responsible for keeping all of the patients' rooms clean, sanitary, and pleasant." Rudy: "I hope they didn't clean it so well that they took out the bed! I'm ready to lie down and rest my sore rattler."
17 Cartoon: patient care personnel	Rudy: "Did you see how many nurses came to see me, Judy? I like the attention, but—who are all those nurses?" Judy: "They are registered nurses, licensed vocational nurses, and nursing assistants."
18 Nursing conference	Judy: "They all work together as a team to diagnose your problems and plan how to take care of you." Rudy: "Wow! I never got this much attention before! I sure hope that nurse with the cute slither comes back!" Judy: "Rudy!"

19 Cartoon: Rudy with syringe and needle	Judy: "Here comes the medical laboratory technician to draw some of your blood for testing." Rudy: "You mean he's going to stick that needle in me?" Judy: "Don't worry! He knows what he's doing. Now smile and take it like a real rattler."
20 Clinical laboratory	Judy: "The laboratory technicians not only test your blood, they also test samples of your urine, feces, tissue, and other specimens. These tests help to find the cause of your illness and tell the doctor if the treatment he is using for you is helping."
21 Rudy with cough	Rudy: "The doctor says to help me get over this little cough, I will be taking inhalation therapy treatments. What's that, Judy?" Judy: "Inhalation therapy treatments are given by personnel from the respiratory therapy department."
22 Inhalation therapy treatment	Judy: "The respiratory therapist uses oxygen and other gases with special respiratory equipment in giving treatments for pulmonary, or lung, difficulties."

23 Cartoon: Rudy with NPO sign	Rudy: "Oh Judy, did you see all the great food that was on the lunch trays the nurses were passing out?" Judy: "Don't look, Rudy. The dietician told me you can't have anything to eat or drink until that NPO sign comes down."
24 Patient with lunch tray	Judy: "You know, Rudy, the dietician is another person who is an important part of the hospital personnel. She has been thoroughly trained in basic nutrition requirements and meal planning. She supervises all persons concerned with the preparation and serving of food. She plans both the general diets for patients and hospital employees and the menus for patient on special diets." Rudy: "I'll really appreciate the dietician once I can start eating again."
25 Cartoon: Rudy at playground	Rudy: "I didn't think I would have to have surgery, but the doctor said it's the only way I'll ever get back to the playground and I'll do anything to get back there."
26 Operating room	Rudy: "Judy, can you tell me anything about the operating room? Will my doctor be the only one there?" Judy: "Oh no! There are lots of people in the

operating room, Rudy. There are nurses, anesthetists, and operating room technicians. They prepare the instruments, supplies, and medications need by the doctor to complete a successful operation."

Rudy: "All this time I thought surgery was a one man job. Now I find out it's a group project!"

Judy: "That's what hospitals are all about, Rudy."

27
Surgical
recovery

Judy: "After surgery you'll be taken to the surgical recovery room where a team of nurses specializing in critical care nursing take care of you until you recover from the anesthetic."

Rudy: "I still think I must be pretty important if all those people would go to that much trouble for me!"

28
Physical
therapy
aide

Judy: "Now that you are in the surgical recovery room, the physical therapy department is discussing what they can do to help you recover. The physical therapist uses exercises and massage, as well as, light, heat, cold, water, and electricity in the treatment of disease and injury."

29 Cartoon: physical therapy treatment	Rudy: "What's a whirlpool bath? and jumping rope? That's kid's stuff!"
30 Cartoon: Judy and friends	Rudy: "Look who's here--the gang! Can't a fellow ever get any rest? Judy, you've explained how each of the hospital departments has helped me but, how do they all have time for me?"
31 Cartoon: chart of hospital personnel	Judy: "See Rudy, this is a combined effort and they are all here to help you get well."
32 Rudy with dismissal	Rudy is ready to be dismissed from the hospital. Before he leaves, he visits all of the people who helped him get well:
33 X-ray department	the radiologic technician, the radiologist, the medical laboratory technician,
34 Hospital business office	people in the business office, the medical record department,
35 Patient with lunch tray	the housekeeping personnel, the dietician, the respiratory therapist, the physical therapist,
36 Operating room	and, the operating room team, nurses, anesthetists, operating room technicians, and surgeons.
37 Surgical recovery	He visits the nurses in the surgical recovery and emergency room.

38 Nurse's station	Rudy pays a final visit to the nurse's station where he gives a farewell rattle to all of the nurses: registered, vocational, and nursing assistants who took care of him while he was sick.
39 Cartoon: Rudy leaves hospital	We hope Rudy doesn't have to come back to the hospital any time soon, but if he does,
40 Cartoon: chart of hospital personnel	all of the hospital personnel will be waiting to care for him.
41 Cartoon: the end	The End
42	Acknowledgements

PERSONNEL INVOLVED IN DIRECT PATIENT CARE

Professional

PHYSICIAN
DENTIST
NURSE
PHARMACIST

DIETICIAN
PHYSICAL THERAPIST
OCCUPATIONAL THERAPIST
SOCIAL WORKER

Others

MAY BE SPECIALIST, RESEARCHERS OR NEWLY DEVELOPED PROFESSIONALS

PERSONNEL INVOLVED IN DIRECT PATIENT CARE

Technicians

- MEDICAL LABORATORY
- RADIOLOGIC TECHNICIAN
- RESPIRATORY THERAPY
- OPERATING ROOM
- DENTAL HYGIENE
- CENTRAL SERVICE TECHNICIAN
- NURSING
- OTHERS- ECG, EEG, CYTO-TECHNICIAN

Assistants

PERSONNEL EMPLOYED TO ASSIST HEALTH PROFESSIONAL OR HEALTH CARE TECHNICIANS

Auxiliary

VOLUNTEERS WHO ASSIST PROFESSIONALS AND TECHNICIANS IN PATIENT SERVICES

PATIENT SERVICES, BUSINESS SERVICES AND PHYSICAL PLANT

Patient Services

- MEDICAL RECORDS
- LAUNDRY & LINEN
- HOUSEKEEPING
- IN-SERVICE EDUCATION

Business Services

- BUSINESS OFFICE
- PURCHASING
- ADMINISTRATOR
- PERSONNEL
- PUBLIC RELATIONS
- ADMITTING & DISMISSAL

Physical Plant

- HOSPITAL ENGINEER
- MAINTENANCE DEPARTMENT

Module: Orientation to the Health Care Delivery System

Unit 5: Internal Organization of a Health Care Facility or Agency

Prerequisite Capability: Complete Units 1 and 3.

Rationale: In order to work effectively in a health care facility, the student must have an understanding of the basic internal organizational structure of a health care facility.

Objective: The student will be able to:
Describe the rational of effective management.
Fill in the names of the departments in a blank organizational chart of an acute care general hospital.

Pre-Assessment: The pre-assessment will consist of a pencil-and-paper test to be administered and scored by the instructor.

Learning Alternatives:
1. Instructor will present a lecture using overhead transparencies to illustrate basic points in the unit.
2. Student will view a slide-tape cassette presentation covering the basic information in the unit.
3. Student will record learning activities in Student Record Book.

References:
French, Ruth M. The Dynamics of Health Care. second edition, pp. 55-64.
Hospital Research and Educational Trust. Being a Ward Clerk, Student Manual, Chapter 1.
MacEachern, Malcolm T. Hospital Organization and Management, third edition, pp. 73-102.
Sloane, Robert M. and Beverly L. A Guide to Health Facilities, Personnel and Management, pp. 105-117.
Stryker, Ruth Perin. The Hospital Ward Clerk. pp. 13-19.

Equipment, Supplies and Materials:
Overhead projector, tape cassette player, slide projector, Student Record Book

Enrichment Activities:
Field trips to acute care general hospital, long-term government supported hospital and small clinic,

office, or laboratory
Guest speaker representing administration section of a large health care facility
Research project on management of health care facilities

Post-Assessment:

Terminal assessment will consist of a pencil-and-paper test to be administered and scored by the Instructor.

Remediation:

For students who fail the post-assessment, one or more of the following courses of action should be taken.

1. Review slide-tape presentation.
2. Using references, draw an organizational diagram of a large hospital and a small dental office.

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Script For Audio Tape

Unit 5: Internal Organization of a Health Care Facility or Agency

Slides	Dialogue
1 Module title	Title: "Internal Organization of a Health Care Facility or Agency"
2 Credits	Credits
3 Printed: internal, organization, health care facility	What is meant by the expression, "internal organization of a health care facility?" Internal means, "existing or situated within the limits of something, or inside." Organization means, "the process of being arranged into a functioning whole; or, an orderly way of doing things." Facility refers to, "something that is built or established to serve a particular purpose."
4 Abstract painting	Without order or organization the system of health care delivery would look something like this!
5 Abstract picture	This is a more orderly arrangement of blocks of color. How can the many different people with a variety of health care skills be organized into a functioning whole that can meet the goals and objectives of a health care facility?

Let's let Rudy and Judy Rattler open the doors for us and give us a look at the internal organization of health care facilities.

6
Chart: hospital organization

This is a typical hospital organizational chart. Rudy wonders how all these divisions work together. He visited several health care organizations after he was in the hospital and found that they are all organized in a similar manner: whether the organization is a large hospital, a small hospital, a clinic, or a voluntary agency.

7
Board of governors

The board of governors, sometimes called the executive board, is a group of people who make all the policies of the organization.

8
Hospital administrator

The administrator is selected by the board of governors to carry out the policies agreed upon by the board members.

9
Medical staff

The medical staff is composed of physicians working together with the hospital personnel. They are responsible for their actions to special medical committees. They work cooperatively with the board of governors and the administrator.

10
Chart: showing auxiliary

Rudy: "Great guns, Judy! What is an AUXILIARY?"

Judy: "Sometimes I wonder about you, Rudy Rattler! An auxiliary is one of a group of

	workers who do nice things for patients.
11 Volunteer 'candy striper'	Don't you remember when you were in the hospital, the 'candy stripers' who came by to bring your mail?
12 Auxiliary volunteer	Members of an auxiliary are also older people who volunteer their time to help provide better health care service for the patient.
13 Chart: hospital departments	All these divisions in the hospital are called departments, Rudy. Each one offers a particular service. The person in charge is responsible for seeing that the people in his or her department follow the directives of the administrator. This is like a family within a hospital. Everyone must work together. I noticed this when I visited you in the hospital.
14 Cartoon: Rudy and Judy cooperate	Look what it would be like—just the two of us—if we didn't work together!
15 Doctor's office assistant	Say, Rudy! What about a small organization, like a dentist's or doctor's office?"
16 Cartoon: doctor's office	Rudy: "Oh well, Judy! I know all about that, because I've been there. The doctor is really the boss. He makes the decisions in his organization. He also selects his personnel. The

one who greets patients and keeps charges is called the receptionist. 'Man,' Dr. Serpentine's girl is courteous and beautiful! The one who helps him, the nurse-assistant, I wish you had a figure like hers. I would say she is slick!

17
Cartoon: public health agency

This is an organizational chart for a public health agency, such as the state department of public health."

Judy: "Do you mean to tell me that the governor is in charge of the public health department? What are all those squiggly lines?"

Rudy: "I'm trying to make that out myself!

18
Public health official

Just yesterday, I overheard a conversation, really by accident. I was lying by the swimming pool and over on the sun deck, this young man was saying that the governor appointed him to serve as a member of the Public Health Board of Directors. He mentioned that the directors had called a meeting for next month. The other fellow he was talking with must have been in charge of one of the departments because he kept mentioning different department names.

19
Public health headquarters

I'm sure that's what the squiggly lines mean. The state public health agency has many, many departments with many local branches; but, I

	think that our local branch is one of the best.
20 Local health department	It's located on 201 Brush Street and it also serves Waterhole, Mudcreek, and several other communities."
21 Illustration: volunteer health agencies	Judy: "I didn't realize until now that the American Red Cross, American Cancer Society, and the American Lung Association are organized also. Of course, they represent the four largest volunteer health agencies but there are many others."
22 List of volunteer health agencies	Rudy: "You know, Judy, this last week I have learned a lot. I suppose my hospitalization really made me realize that the people in a health care facility or agency must be organized in order to give such excellent care.
23 Chart: hospital organization	I went back to the swimming pool today, and thought, and thought, especially about the internal organization of health care facilities and agencies. I have decided that all organizations work very much the same way. Some are just large and some are small.
24 Board of governors	Large organizations are usually operated by a board of trustees or board of governors. The board hires an administrator or executive to carry out the policies of the board and to

direct the work of the different departments. The department heads translate the orders of the administrator into assignments for the people in each of their departments.

25
Chart:
medical
staff and
auxiliary

In a large general hospital the medical staff works together with the board of trustees and the administrator. Another group of people working together with the administrator are the volunteer workers or hospital auxiliary.

26
Red Cross
sign

Large voluntary organizations, such as the American Red Cross are organized in a similar way with a board of trustees and an administrator.

27
Cartoon:
doctor's
office

In smaller organizations, such as a doctor's or dentist's office, there is no need for a governing board or full time administrator. One person, however, must be responsible for making the final decision.

28
Cartoon:
public
health
agency

In public health agencies the board of governors and sometimes the administrator are appointed by the chief executive of a unit of government: the president, the governor, or the mayor. Organization makes it possible for persons to make decisions and to be held accountable for making and carrying out these decisions.

29 Cartoon: Rudy with sun burn	If you had been with me, Judy, we could have talked about this. Perhaps I would have gotten so excited that I wouldn't have relaxed on my back and baked my little white belly. Oh well, that's life!"
30	Acknowledgements

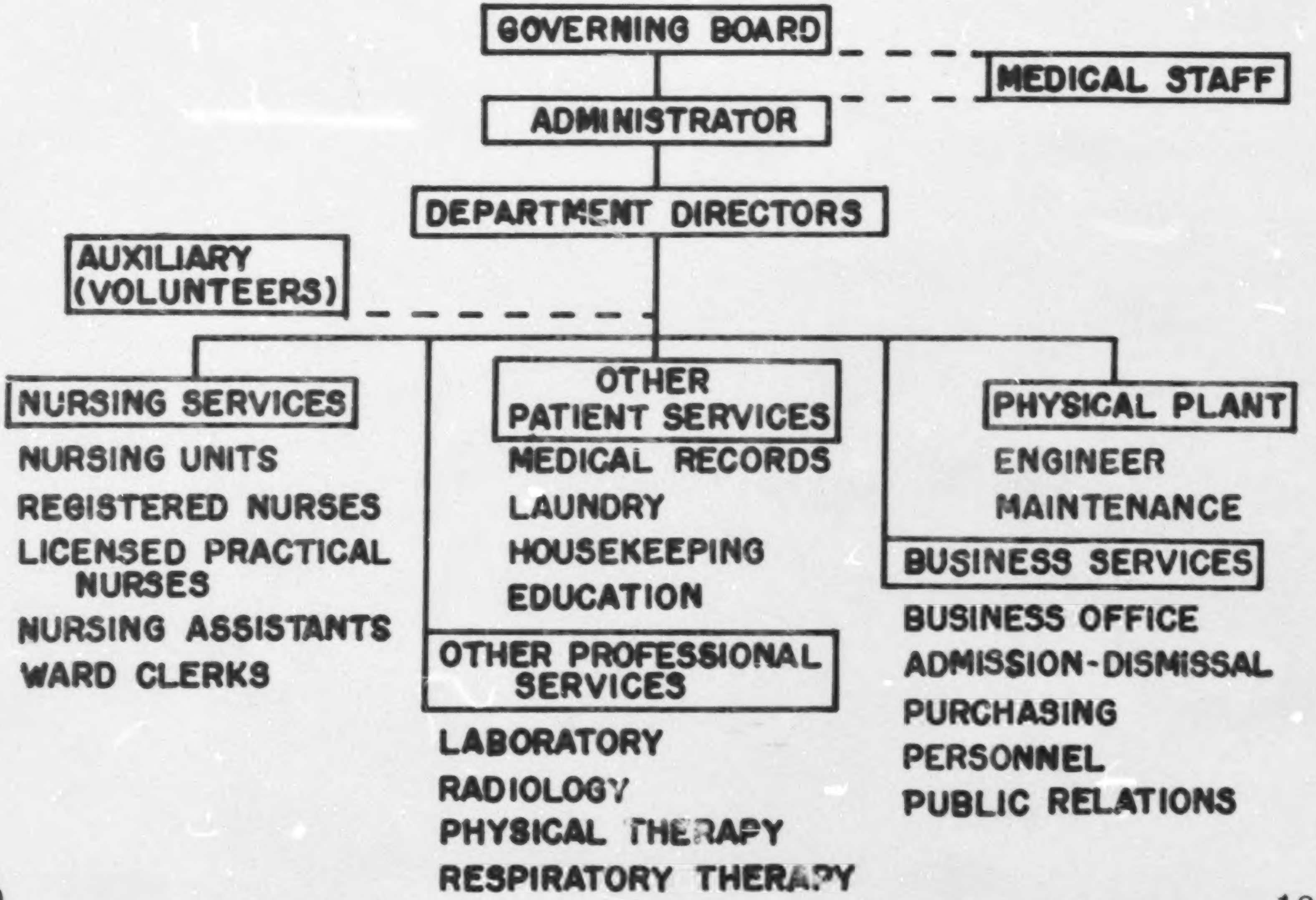
INTERNAL ORGANIZATION

Internal - within an area, enclosed

Organization - the act of developing a structure, forming a close unity

Health Care Facility - an institution offering treatment for illness and/or the prevention of illness

EXAMPLE OF HOSPITAL ORGANIZATION



GOVERNING BOARD

MEDICAL STAFF

ADMINISTRATOR

DEPARTMENT DIRECTORS

AUXILIARY (VOLUNTEERS)

NURSING SERVICES

- NURSING UNITS
- REGISTERED NURSES
- LICENSED PRACTICAL NURSES
- NURSING ASSISTANTS
- WARD CLERKS

OTHER PATIENT SERVICES

- MEDICAL RECORDS
- LAUNDRY
- HOUSEKEEPING
- EDUCATION

OTHER PROFESSIONAL SERVICES

- LABORATORY
- RADIOLOGY
- PHYSICAL THERAPY
- RESPIRATORY THERAPY

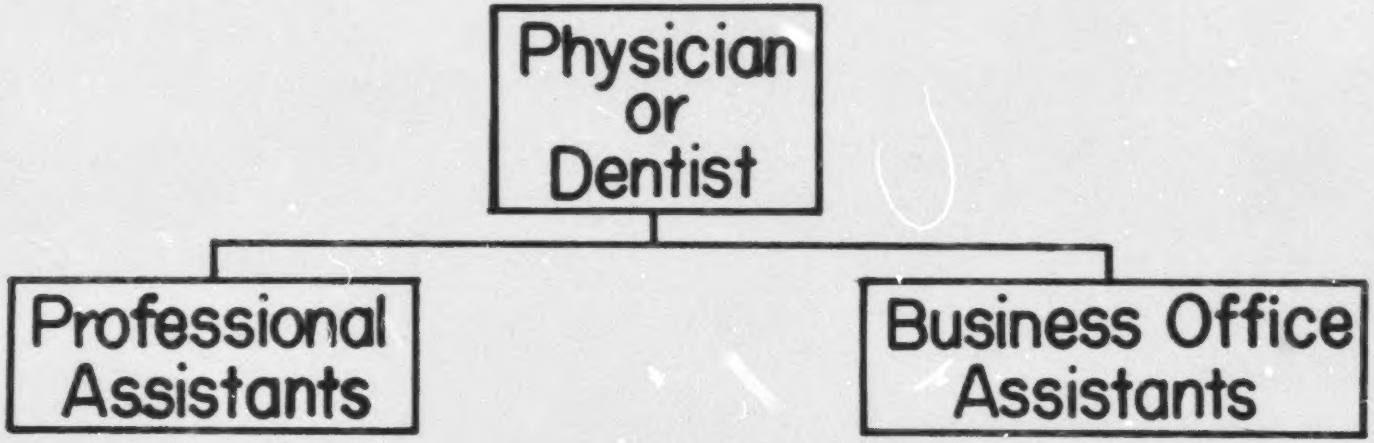
PHYSICAL PLANT

- ENGINEER
- MAINTENANCE

BUSINESS SERVICES

- BUSINESS OFFICE
- ADMISSION-DISMISSAL
- PURCHASING
- PERSONNEL
- PUBLIC RELATIONS

SMALL HEALTH CARE FACILITY
Physician's or Dentist's Office



Physician or Dentist

Professional Assistants

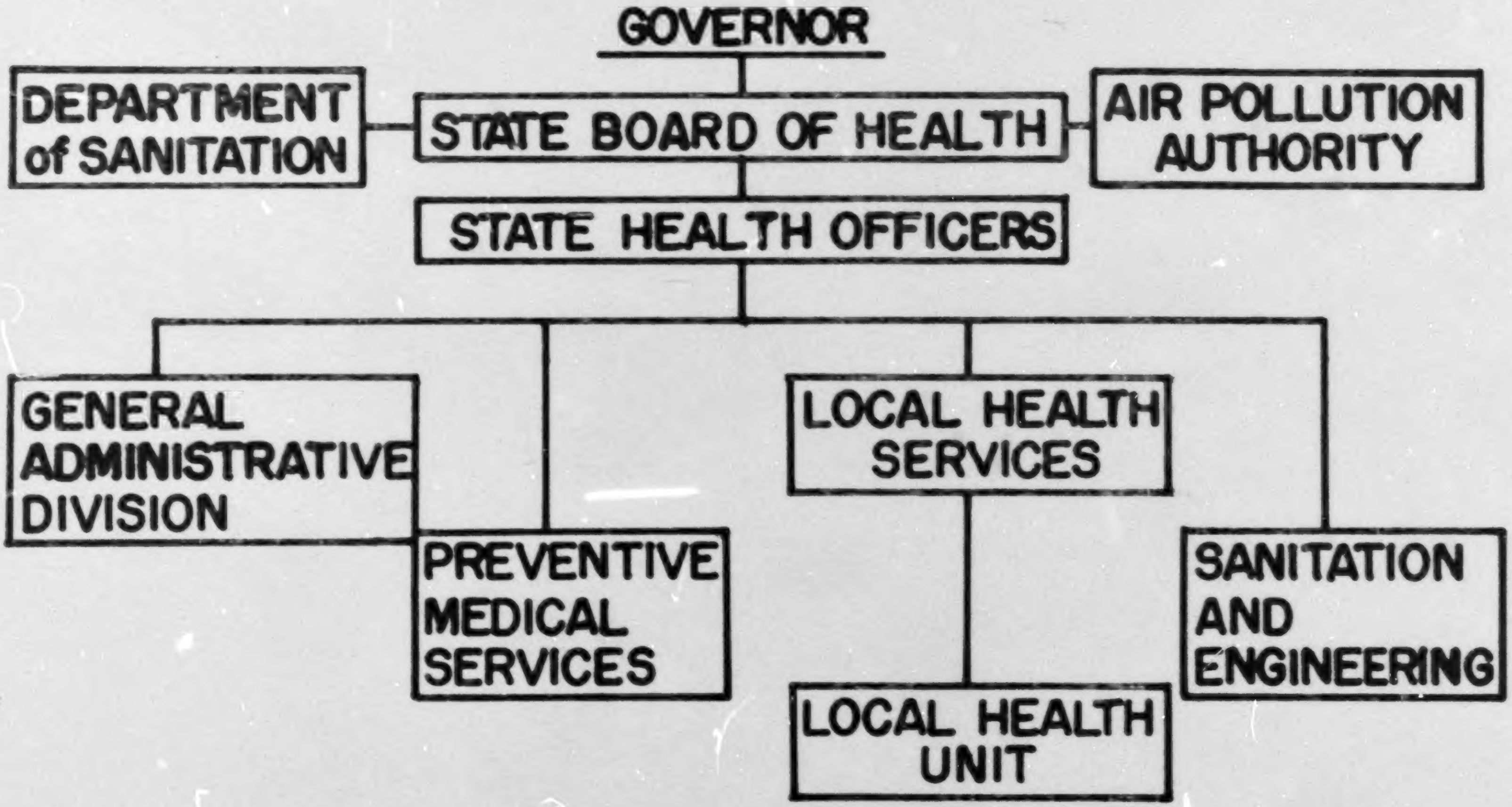
Business Office Assistants

Nurse
Laboratory Technician

Receptionist
Bookeeper

PUBLIC HEALTH DEPARTMENTS

State Health Department



GOVERNOR

DEPARTMENT of SANITATION

STATE BOARD OF HEALTH

AIR POLLUTION AUTHORITY

STATE HEALTH OFFICERS

GENERAL ADMINISTRATIVE DIVISION

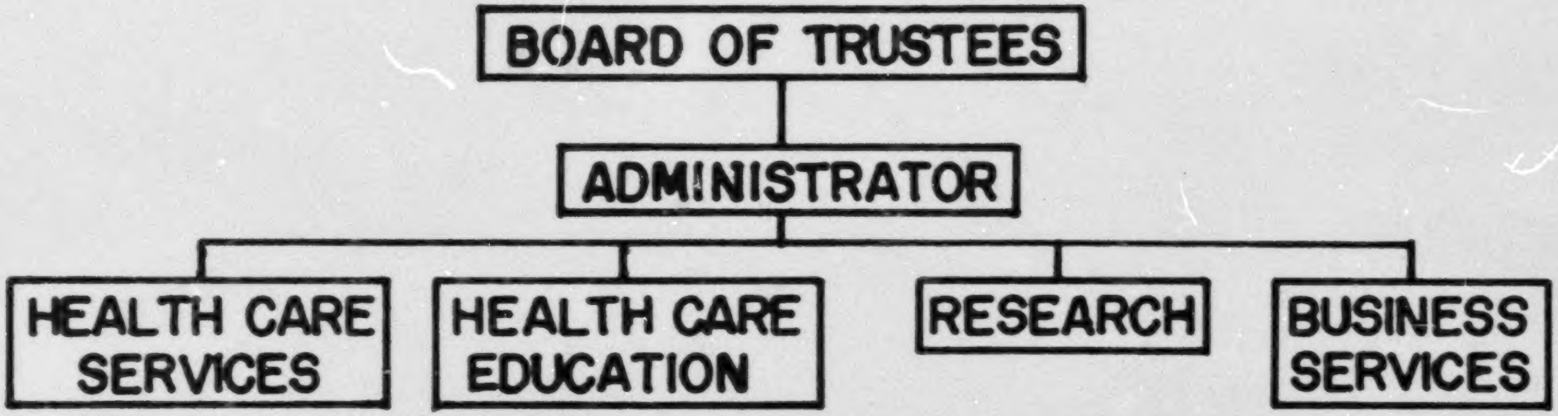
PREVENTIVE MEDICAL SERVICES

LOCAL HEALTH SERVICES

LOCAL HEALTH UNIT

SANITATION AND ENGINEERING

VOLUNTEER HEALTH SERVICE AGENCIES


BOARD OF TRUSTEES

ADMINISTRATOR

HEALTH CARE SERVICES

HEALTH CARE EDUCATION

RESEARCH

BUSINESS SERVICES

AMERICAN RED CROSS
AMERICAN HEART ASSOCIATION
AMERICAN CANCER SOCIETY
TUBERCULOSIS ASSOCIATION
& MANY OTHERS

Module: Orientation to the Health Care Delivery System

Unit 6: Major Health Problems

Prerequisite Capability: Complete Units 1 and 2.

Rationale: In order to function effectively as a health worker, the student must know the major health problems in the United States and worldwide.

Objectives: The student will be able to:

Write the definition of "health" as given by the World Health Organization

List the four major advances in health care in the United States

List four of the major environmental health problems

List the four major health problems worldwide

List three items under each of the six categories of basic human needs as described by Abraham Maslow

Pre-Assessment: The pre-assessment will consist of a pencil-and-paper test to be administered and scored by the instructor.

Learning Alternatives:

1. The instructor will present a lecture using overhead transparencies to illustrate the basic concepts in the unit.
2. Students will review reports from the Communicable Disease Control Center, Atlanta, Georgia, and report on the current prevalence of disease.
3. The student will record learning activities in the Student Record Book.

References:

Anderson, C.L. Health Principles and Practice, sixth edition, pp. 16-50.

French, Ruth M. The Dynamics of Health Care, second edition, pp. 1-9.

Fundamental Nursing Principles: Health and Its Meaning. Robert J. Brady Co. Washington, D.C. 1964.

Marshall, Carter L. and David Pearson. Dynamics of Health and Disease, pp. 15-87.

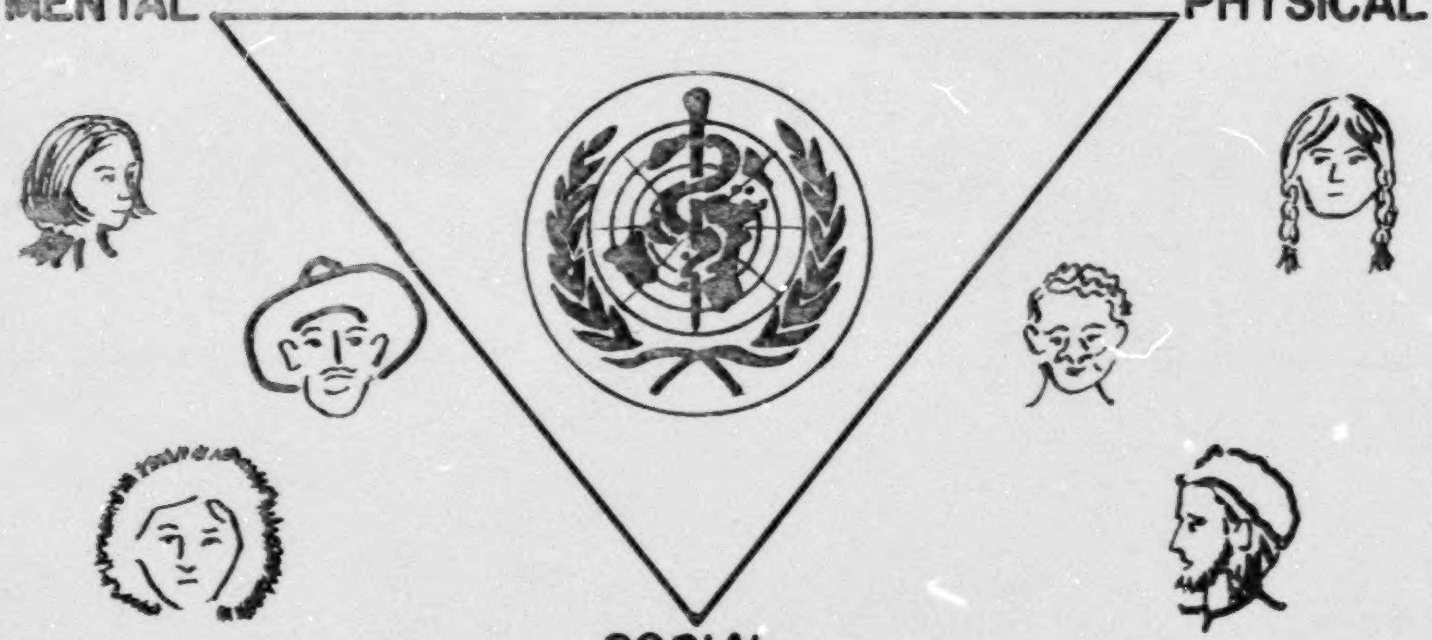
"Morbidity and Mortality Weekly Report" Public Health Department, Communicable Disease Center, Atlanta, Georgia 30333.

Equipment, Supplies and Materials:

Overhead projector

HEALTH...

DEFINED BY WORLD HEALTH ORGANIZATION:
A STATE OF COMPLETE PHYSICAL, MENTAL AND SOCIAL WELL-BEING, AND NOT MERELY THE ABSENCE OF DISEASE OR INFIRMITY."



MENTAL

PHYSICAL

SOCIAL

"...ONE OF THE FUNDAMENTAL RIGHTS OF EVERY HUMAN BEING WITHOUT DISTINCTION OF RACE, RELIGION, POLITICAL BELIEF, ECONOMIC OR SOCIAL CONDITION."

HEALTH... MAJOR ADVANCES IN THE UNITED STATES

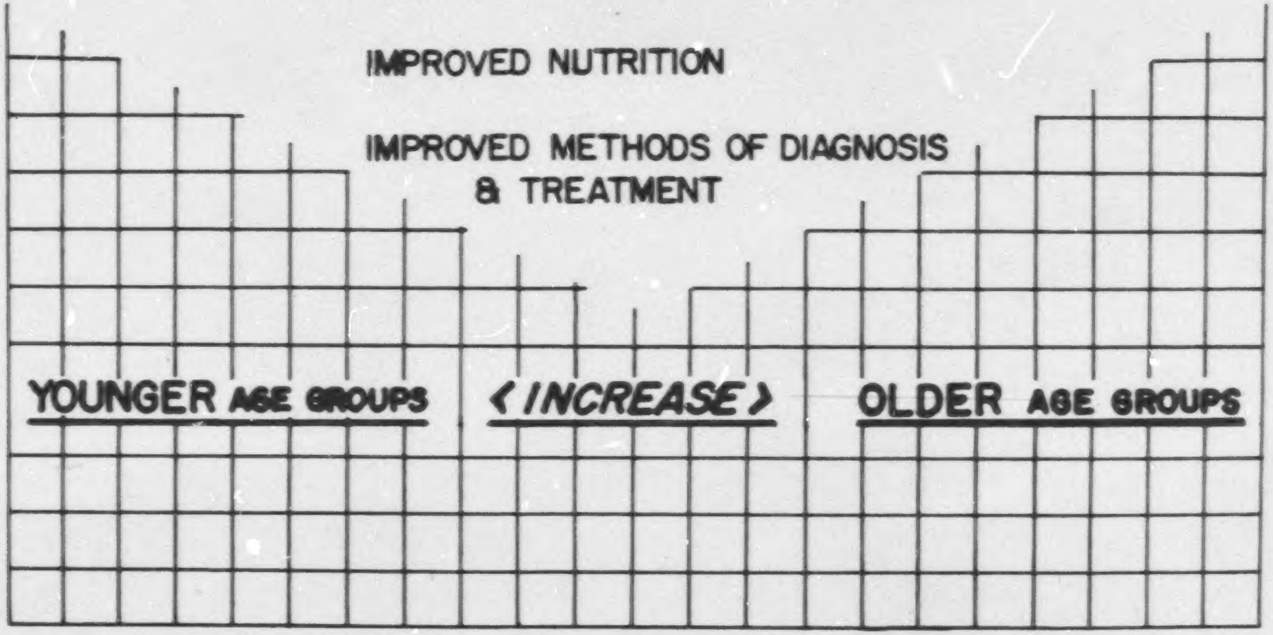
INCREASED LIFE SPAN

CONTROL OF COMMUNICABLE DISEASE

IMPROVED MATERNAL & INFANT CARE

IMPROVED NUTRITION

IMPROVED METHODS OF DIAGNOSIS
& TREATMENT


YOUNGER AGE GROUPS
< INCREASE >
OLDER AGE GROUPS

MAJOR HEALTH PROBLEMS

CHRONIC DISABLING DISEASES

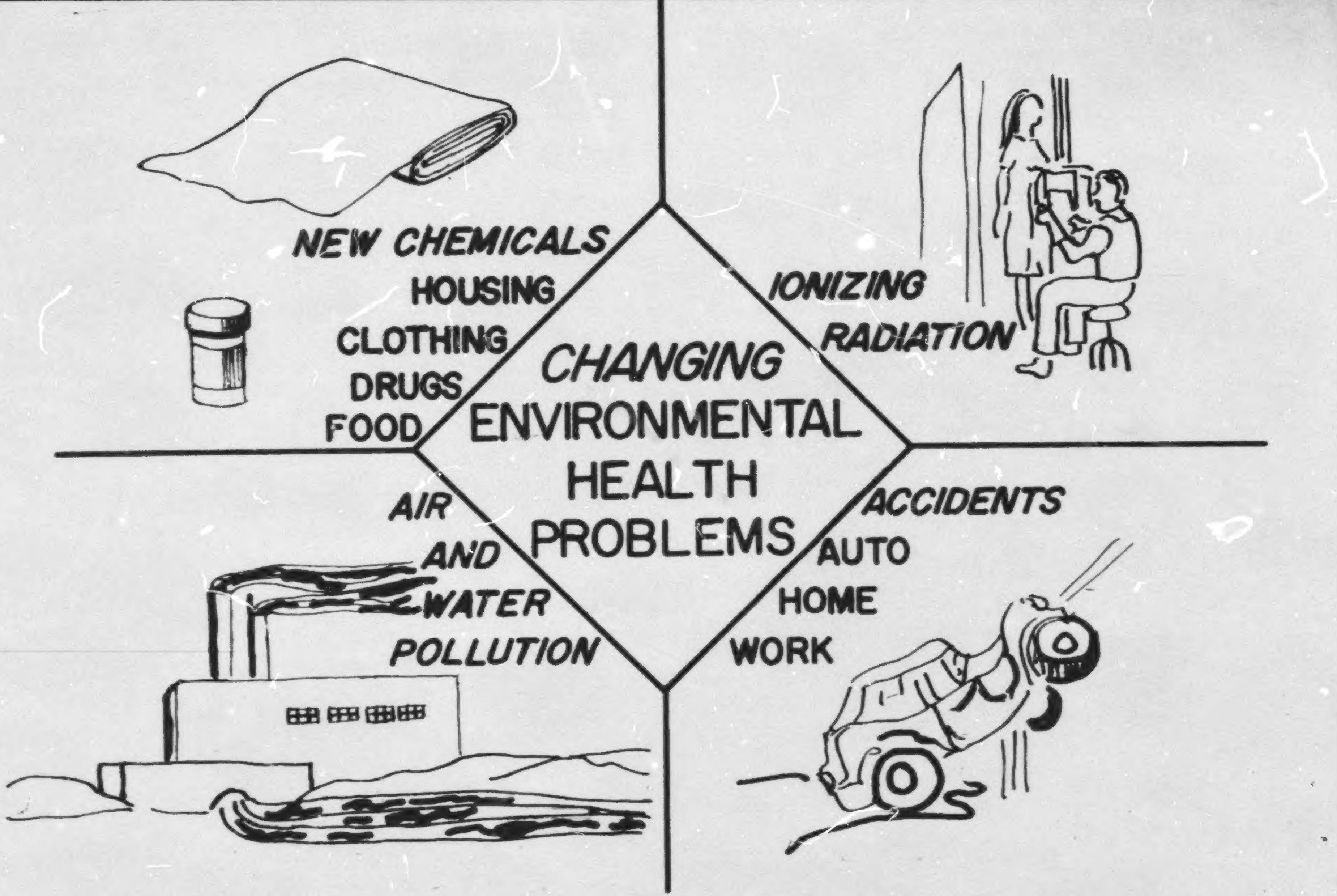
- PHYSICAL
  - HEART AND VASCULAR DISEASE
  - CANCER
  - DIABETES
  - ARTHRITIS
- MENTAL
  - RETARDATION
  - SCHIZOPHRENIA
  - ALCOHOLISM
  - DRUG ADDICTION
  - SUICIDE

MALNUTRITION

MALARIA

POPULATION

INCREASE



CHANGING ENVIRONMENTAL HEALTH PROBLEMS

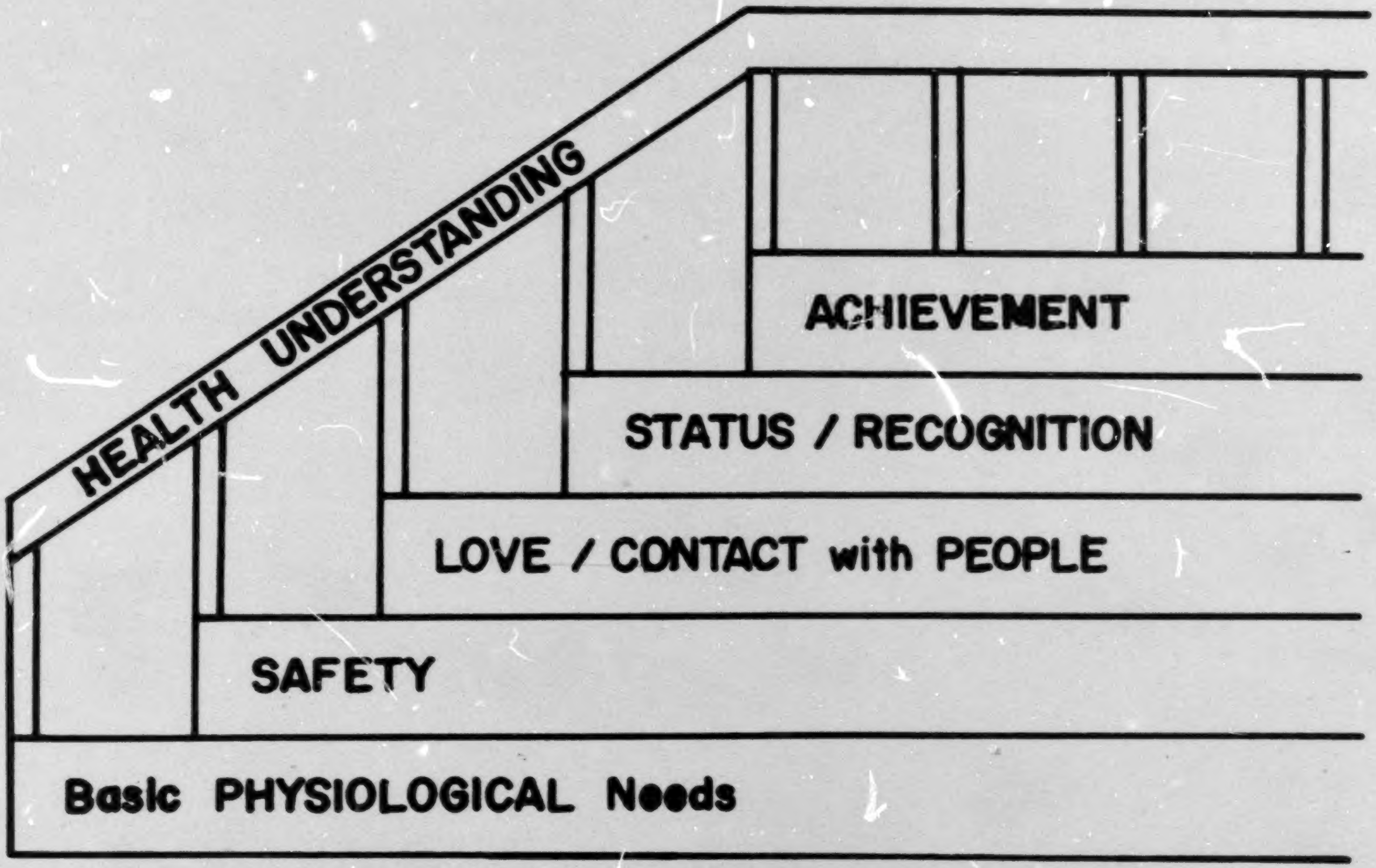
NEW CHEMICALS
HOUSING
CLOTHING
DRUGS
FOOD

IONIZING RADIATION

AIR AND WATER POLLUTION

ACCIDENTS
AUTO
HOME
WORK

HEALTH
A NEED AT EACH LEVEL



HEALTH UNDERSTANDING

ACHIEVEMENT

STATUS / RECOGNITION

LOVE / CONTACT with PEOPLE

SAFETY

Basic PHYSIOLOGICAL Needs

Module: Introduction to the Health Care Delivery System

Unit 7: Illness Interferes With Meeting Basic Human Needs

Prerequisite Capability: Completion of Units 1-6

Rationale: In order to function effectively as a health worker the student must understand his own basic needs, the needs of the patient and the effects of illness on the patient's ability to meet these needs.

Objective: The student will be able to perceive himself as a person with basic human needs and perceive that illness interferes with meeting these basic needs.

Pre-Assessment: None

Learning Alternatives:

1. Instructor will present a lecture using overhead transparencies to illustrate the basic points in the unit.
2. Student will view slide-tape presentation illustrating the main points of the unit.
3. Student will record activities in the Student Record Book.

References:

Fitts, William H. et al. *The Self Concept and Self-Actualization*, pp. 1-8.
Maslow, Abraham H. *Motivation and Personality*, second edition, pp. 35-58.
Maslow, Abraham H. *Toward a Psychology of Being*, second edition, pp. 21-43.
Milliken, Mary Elizabeth. *Understanding Human Behavior*, pp. 27-67.
Mumford, Emily and James K. Skipper, Jr. *Sociology in Hospital Care*, pp. 48-70.

Equipment, Supplies and Materials:

Overhead projector, slide projector, tape cassette player, Student Record Book.

Enrichment Activities:

1. Research report on qualities needed for good mental health.
2. Visits to children's home, mental retardation facility, city or county hospital.

Post-Assessment:

Terminal assessment will consist of a pencil-and-paper test to be administered and scored by the instructor.

Remediation:

Review material on the overhead transparencies.
Review slide-tape presentation.

Script For Audio Tape

Unit 7: Illness Interferes With Meeting Basic Human Needs

Slides	Dialogue
1 Title	Title: "Illness Interferes With Meeting Basic Human Needs"
2 Credits	Credits
3 Diagram: human needs	All persons have certain basic needs beginning with physiological needs and leading up to the need for self-actualization, or self-fulfillment. The first group of needs to be considered are the physiological needs for oxygen, food, water, sleep, and activity.
4 North African tribesmen	Parents usually provide the physical needs for their children but sometimes parents have problems which they cannot solve.
5 Starving child	This leaves their children to suffer from malnutrition or other deficiency conditions.
6 Smashed automobile	Safety needs include the needs for security, stability, freedom from fear, anxiety, and chaos, structure and strength in the protector. These needs are met in the home by strength in the parents: providing limits, as well as, freedom from fear, anxiety, and disorder. A

society provides for safety needs by providing: structure, law, order, and freedom from fear. We see here the result of a lack of automobile safety.

7
Family
group

The need for love and belonging is met through closeness of family and community ties. Here we see a close-knit family offering mutual love and companionship. Close friends and participation in school clubs and community activities, such as: Boy Scouts, Camp Fire Girls, YMCA, and church activities, increase a person's sense of belonging.

8
High
school
graduation

The need for self-esteem and recognition by others is met through individual efforts at meeting socially acceptable goals and achievements. Graduation from high school, athletic honors, musical honors, and scouting honors are examples of meeting the need for recognition.

9
Candidate
with campaign
poster

Self-actualization or self-fulfillment is possible when an individual has met all or most of his basic needs and is able to set his own goals and work for his own self-fulfillment. The young lady in the picture has enough self-confidence to present herself as a candidate for state office and create an attractive poster to aid in her campaign.

10 Nursing assistant with patient

Fulfillment is also possible through achievement in a health occupation. Individual initiative in organizing and carrying out a plan of patient care can offer a great deal of satisfaction and fulfillment for the health worker.

11 Definition of disease

Disease may be defined as, "any condition that actually or potentially impedes individual function." Illness is a word used to describe a person who has a disease. Illness, since it is an interruption of a person's normal routine, presents a threat to a person in meeting his basic needs.

12 Hospital patient

Here we see a person who is ill and requires hospitalization. She is dependent, rather than independent; in pain, rather than comfortable; in a strange place, rather than in her familiar home. She must depend upon others to help her meet her basic needs.

13 Hospital patient in traction

The patient that you will be caring for in the hospital or clinic will have problems meeting his basic needs without your assistance. You will be able to assist him more effectively, if you have met most of your basic needs.

14
Diagram:
human
needs

Remember, your patient may have problems meeting his physiological needs, such as his need for water and oxygen. There are threats to his safety needs, since he is in a strange place, following a strange routine, and fears that he may have pain.

15
Hospital
patient

The patient experiences interference with meeting his needs for belonging, self-esteem, and self-fulfillment. He is away from his family and friends, he is unable to carry out his normal duties and obligations, and he is unable to do the things that he really enjoys and that give him satisfaction.

The patient has many questions that he may, or may not discuss with you. Will I live? Will I have pain? If I have surgery, will I still be the same person, or will I be less of a person? Can my family manage without me? Why did this have to happen to ME?

16 Acknowledgements

PHYSIOLOGICAL NEEDS

Oxygen
Food
Water
Sex
Sleep
Rest
Activity

SAFETY NEEDS

Security Stability

Freedom from fear, anxiety and chaos

Limits Structure

NEED FOR LOVE AND BELONGING

Affection

Intimacy

Contact

NEED FOR ESTEEM

- Self-respect
- Achievement
- Prestige
- Dominance
- Self-esteem
- Recognition
- Independence
- Appreciation

NEED FOR SELF-ACTUALIZATION

Doing what a person, individually, is fitted for, to become everything that he is capable of becoming.

ILLNESS INTERFERES WITH MEETING BASIC NEEDS

Disease- any condition which actually or potentially interferes with individual function.

INTERFERENCE

Personal Freedom
Comfort
Achievement
Stability
Physiological Needs
Affection

Module: Introduction to the Health Care Delivery System

Unit 8: The Health Worker As An Assistant in Meeting Patient Needs.

Prerequisite Capability: Completion of Units 1-7.

Rationale: In order to function effectively as a health worker the student must perceive himself in the role of an assistant offering health care to persons in need of such care.

Objective: The student will be able to:
Perceive himself as a person offering assistance to those in need of health care.

Pre-Assessment: None

Learning Alternatives:

1. Instructor will present a lecture using an overhead transparency to introduce the topic to the students.
2. Students will view a slide-tape presentation designed to introduce them to typical situations encountered as a health occupation assistant.

References:

French, Ruth M. The Dynamics of Health Care, second edition, pp. 1-21.
Milliken, Mary E. Understanding Human Behavior, pp. 138-163.

Equipment, Supplies and Materials:
Overhead projector, slide projector, tape cassette player, Student Record Book.

Enrichment Activities:

1. Guest speakers who are former students in a health occupations program to discuss typical problems in human relations encountered by the beginning health worker.
2. Observation in a health care facility by an individual student or small group of students.

Post-Assessment:
Terminal assessment will consist of a pencil-and-paper test to be administered and scored by the instructor.

Remediation:

For students with a low rating on the post-assessment one or more of the following courses of action should be taken.

1. Review the material on the overhead transparencies.
2. Student should read the material in the two references and write a summary of the topics discussed in each reference.

BEST COPY AVAILABLE

Script For Audio Tape

Unit 8: The Health Worker as an Assistant in Meeting Patient Needs

Slides	Dialogue
1 Title	Title: "The Health Worker as an Assistant in Meeting Patient Needs"
2 Credits	Credits
3 Definition of disease	If disease is defined as, "any condition that actually or potentially interferes with individual function", then the person stricken with disease is in need of assistance to help him function and meet his basic needs.
4 Patient in examining room	Can you, as a health care assistant, help this person in need of health care? The following situations are presented from the view-point of an assistant preparing to meet patient needs. At the end of each sequence, the instructor should turn off the tape player and slide projector and lead the students in a discussion of the ways in which the assistant can help the patient meet his basic needs.

The Nursing Assistant

Slides	Dialogue
5 Nurse Aide with patient	Nurse Aide: "Good morning, Mrs. Johnson! Would you like to wash your face before breakfast?"

Mrs. Johnson: "What's good about It? I feel terrible! My arthritis bothered me all night—I didn't sleep a wink!"

Nurse Aide: "I'm sorry to hear that. May I help you get ready for breakfast?"

Mrs. Johnson: "I don't know! I don't think I'll ever get out of this hospital. My doctor doesn't seem to be helping me! My family hasn't been to see me for three days!"

6
Patient with two nursing assistants

2nd Nurse Aide: "Here's your breakfast tray!"

Mrs. Johnson: "I didn't want coffee, I wanted tea! I never eat eggs for breakfast—I like oatmeal!"

7
Nursing assistants with head nurse

Nurse Aide: "Mrs. Spencer, Mrs. Johnson seems very upset this morning. What can we do to make her feel better and to help her get well?"

Physical Therapy Aide

8
Mother, child and PT aide

P.T. Aide: "Mrs. Moore, let's have Sharon put her arm into the whirlpool."

Mrs. Moore: "Are you sure you know what you're doing? You seem too young to be working in here. Sharon's too sore to have her treatment today. She'll be all upset and won't eat her lunch if she has her treatment!"

9 Mother, child and PT aide	P.T. Aide: "Mrs. Moore, Sharon needs this treatment if she's going to get well and be able to use her arm again. Why don't I have the physical therapist come and explain the reason for Sharon's treatment. Then I'll help her get ready for the whirlpool and you may stay with her, if you like."

Dental Assistant

10 Dental patient with dental assistant	Dental Assistant: "Good morning, Mrs. Sams! How may we help you this morning?" Mrs. Sams: "Oh, I have this terrible toothache! It's been getting worse for three days. I guess I need to have Dr. Bridges pull it out. Will it hurt very bad?"
11 Patient in dental chair	Dental Assistant: "Come into the operatory and let me prepare you for Dr. Bridges' examination." Mrs. Sams: "What do you think Dr. Bridges will do to me?"

Medical Assistant

12 Medical assistant with patient and mother	Medical Assistant: "Hello, Mrs. Simmons! Is Mary to see Dr. Ringer today?" Mrs. Simmons: "Oh yes! She's been sick off and on for a week! She's had some fever and a little rash. She's been vomiting, but she was better

	this morning, so I let her go to school. She needs her education, you know. But, the school nurse sent her home and said that she wasn't to come back to school until I had a note from the doctor."
13 Medical assistant with patient and mother	Medical Assistant: "Mary, come on into the examining room and I'll get you ready for Dr. Ringer to examine."
14	Acknowledgements

FIVE PATIENT NEEDS

1. Empathy - not sympathy
2. Safe environment
3. Acceptance as a person of worth regardless of social or economic background.
4. Prompt, skillful health care
5. Ethical, honest health care

ASSISTANT AS SEEN BY THE PATIENT

Not as an individual
Associated with pain or discomfort
Associated with loss of freedom
A person in a dominant role
A person offering comfort and assistance

THE SICK ROLE

Patient is expected to:	Patient expects:
GET WELL	RELIEF FROM RESPONSIBILITY
SEEK TECHNICALLY COMPETENT HELP	HELP FROM FAMILY AND FRIENDS
BELIEVE THAT SCIENCE AND MEDICINE CAN CURE	RECOVERY WITH THE HELP OF PROFESSIONALS
COOPERATE WITH TECHNICALLY COMPETENT AUTHORITY	

BIBLIOGRAPHY

Anderson, C. L. *Health Principles and Practice*, sixth edition. St. Louis: C. V. Mosby Co., 1970.

Being a Ward Clerk. Hospital Research and Educational Trust. Washington, D.C.: Robert J. Brady Co., 1967.

Bender, George A. and Robert A. Thom. *Great Moments in Medicine*. Detroit: Parke, Davis and Co., 1964.

Caldwell, Esther and Barbara R. Hegner. *The Health Assistant*. Albany, New York: Delmar Publishers, 1969.

Fitts, William H., et al. *The Self Concept and Self-Actualization*. Research Monograph No. 3, Grant #RD-2419-G Social and Rehabilitation Service. Nashville, Tennessee: The Dede Wallace Center, 1971.

French, Ruth M. *The Dynamics of Health Care*, second edition. New York: McGraw-Hill Book Co., 1974.

Fundamental Nursing Principles: Health and Its Meaning. Washington, D.C.: Robert J. Brady Co., 1964.

MacEachern, Malcolm T. *Hospital Organization and Management*, third edition. Chicago: Physician's Record Co., 1957.

Marshall, Carter C. and David Pearson. *Dynamics of Health and Disease*. New York: Appleton=Century-Crofts, 1972.

Maslow, Abraham H. *Motivation and Personality*, second edition. New York: Harper & Row, Publishers, 1970.

________. *Toward a Psychology of Being*, second edition. New York: Van Nostrand Reinhold Co., 1968.

Milliken, Mary Elizabeth. *Understanding Human Behavior*. Albany, New York: Delmar Publishers, 1969.

Mumford, Emily and James K. Skipper. *Sociology in Hospital Care*. New York: Harper & Row, Publishers, 1967.

Sloane, Robert M. and Beverly L. *A Guide to Health Facilities Personnel and Management*. St. Louis: C. V. Mosby Co., 1971.

Taber, Clarence W. *Taber's Cyclopedic Medical Dictionary*, 11th edition. Philadelphia: F. A. Davis, Publishers, 1969.

United States Public Health Service, Communicable Disease Center. *Morbidity and Mortality Weekly Report*. Atlanta, Georgia: 1974.

APPENDIX C

STUDENT RECORD BOOK

FOREWORD

As a student enrolled in an occupational program designed to prepare you to function as a health care technician or assistant, it is essential that you have an understanding of the system within which you are expected to function.

This module is designed to assist you, as one who has had little previous experience as a health worker. Many subjects are introduced that you and your instructor will want to explore in greater depth later in your instructional program. It is not the purpose of this module to give extensive coverage to subjects such as: health careers, health care services, hospital organization, human relations and ethics. You will be introduced to these subjects through instructional methods that should prove stimulating and serve as focal points for later study.

The module is designed to be used by a group of students in a health occupations class with the instructor acting as a facilitator and resource person. The instructor will introduce you to the basic concepts in each unit by means of a lecture using overhead transparencies. In all except two of the units, this first presentation will be followed by a 35 mm. slide and audio cassette presentation designed to reinforce the concepts presented earlier. If you feel the need, you may repeat the slide-tape presentation as an individual study unit.

The Student Record Book contains the behavioral objective and the basic concepts for each unit, the conditions for learning and the criteria of acceptance. There is a vocabulary list for all except Unit 2. Each unit contains study questions that will help you to check your own progress in the unit. There is also space for you to record your activities in meeting the objectives and any enrichment activities or experiences during the process of completing the unit.

STUDENT RECORD

Unit 1: Health Care Facilities

OBJECTIVE: The student will be able to:
Define "health care facility" and describe several types
Classify health care facilities according to type of ownership and control, type of patient treatment offered, and length of patient stay

CRITERIA OF ACCEPTANCE:
Student must score 75% or higher on the written test covering information in this unit. If the score is less than 75%, a part or all of this unit should be repeated.

INSTRUCTIONAL CONCEPTS:
1. Hospitals may be classified in three different ways.
2. Public Health Departments are at different levels of government and offer a variety of services.
3. The physician in private practice serves as a health care facility.
4. Pre-paid health care plans present an alternate method of entering the health care delivery system.
5. Definitions of words and commonly used phrases are essential to comprehension of the services offered by health care facilities.
6. Other health care facilities include: school health programs, mental health clinics, drug control clinics and occupational health services.

LEARNING ALTERNATIVES:
1. Listen to presentation by the instructor of the basic concepts of the unit.
2. View the slide-tape segment of this unit.
3. Define terms listed in the vocabulary section and answer study questions.
4. List all other activities pertaining to this unit in the Record Book.

REFERENCES:
Anderson, C.L. Health Principles and Practice, sixth edition, pp. 345-409.
Caldwell, Esther. The Health Assistant, pp. 1-8.
French, Ruth M. The Dynamics of Health Care, second edition, pp. 23-44.
Sloane, Robert M. and Beverly L. A Guide to Health Facilities, Personnel and Management, pp. 16-20.
Taber, Clarence, W. Taber's Cyclopedic Medical Dictionary, 11th edition.

SUPPLIES AND MATERIALS:
Information Sheet - 1, slide-tape presentation, Unit 1

ENRICHMENT ACTIVITIES:
Visit health care facilities in your local community.
Write for information and brochures from health care agencies not located in your community.
Write a research report on public health organizations or voluntary health agencies.

INFORMATION SHEET

- I. Classification of hospitals
  - A. According to type of ownership or control
    - 1. Government supported-federal, state, local-general or special
    - 2. Non-government supported-owned by church, school, private foundation, public foundation
  - B. According to type of patient treatment offered-general (medicine and surgery), psychiatric, children's, maternal, tuberculosis, leprosy
  - C. According to length of patient stay
    - 1. Short term (less than 30 days)
    - 2. Long-term (more than 30 days)-psychiatric, tuberculosis, leprosy, extended care, nursing homes
    - 3. Number of patients hospitalized at one time
      - a. 95% of admissions to short-term facilities
      - b. 80% of all hospitals are short-term facilities
      - c. 62% of patients hospitalized at any one time are in long-term facilities

- II. Public Health Departments
  - A. International-World Health Organization
  - B. Federal-Department of Health, Education and Welfare
    - 1. United States Public Health Service
    - 2. Veteran's Administration, Department of the Army, Navy Department
  - C. State Department of Public Health-vital statistics, sanitation screening (milk and water), communicable disease control, nursing service, etc.
  - D. Local-city and county health departments

- III. Physician in Private Practice
  - A. Solo, partnership, or clinic
  - B. General practice or specialty practice
  - C. Also, dentist, optometrist, podiatrist

- IV. Pre-paid health care
  - A. Kaiser Foundation Health Plan
  - B. Union-sponsored family health plan
  - C. Single purpose of multi-phasic screening
  - D. Medicare and Medicaide

- V. Other Health Care Facilities
  - A. School health programs
  - B. Mental health clinics
  - C. Drug control clinics
  - D. Occupational health services

VOCABULARY

acute

chronic

clinic

disease

facility

family planning

health care facility

hospital

institution

illness

leprosy

maternal

mental health

mental retardation

multi-phasic

nursing home

prevention

psychiatric

rehabilitation

tuberculosis

venereal disease

Student Record Book Unit 1-4

Study Questions

1. List three ways of classifying hospitals and give examples of each classification.

2. Compare the number of patients admitted on any one day with the number of patients hospitalized at any one time, in short-term and long-term health care facilities.

3. List four levels of agencies involved in public health examples of each and list two activities of each agency.

4. List four types of health care professionals who may function in private practice.
List three ways in which these private practice offices may be set up.

5. Describe a pre-paid health care plan. List and describe five examples of pre-paid health care plans.

6. List and describe four health facilities other than those mentioned above.

7. List and describe your activities in meeting the objectives of this unit and any enrichment activities experienced during the process of completing this unit.

STUDENT RECORD

Unit: #2 Health Care Facilities in the Local Area

OBJECTIVE: The student will be able to:

List the names of the health care facilities found in his community.

Describe the ownership and control, type of services offered and the length of patient care offered by these local health care facilities.

CRITERIA OF ACCEPTANCE:

Student must score 75% or higher on the written test covering information in this unit. If the score is less than 75%, one or more of the learning alternatives should be repeated.

INSTRUCTIONAL CONCEPTS:

1. The local community contains a number of health care facilities, differing in ownership and control, type of services offered and length of time a patient is permitted to stay.
2. After completing this unit, the student is able to refer himself or others to the correct health care facility for the type of health care service required.

LEARNING ALTERNATIVES:

1. Using the yellow pages of the telephone book, the student will compile a list of the hospitals, nursing homes and health agencies listed. Using the regular section of the telephone book, the student will locate health care facilities listed under governmental agencies: city, county, state and national.
2. Students as individuals or small groups will visit local health care agencies, secure information and brochures and give a report of this visit to the class plus a written report of the visit.
3. Student will obtain information from libraries or from the original agency regarding types of health care agencies not found in the local community.
4. List all activities pertaining to this unit in this Record Book.

REFERENCES:

Telephone Directory - local and metropolitan

Anderson, C. L. Health Principles and Practice, sixth edition, pp. 364-411.

French, Ruth M. The Dynamics of Health Care, second edition, pp. 23-34.

Sloane, Robert M. and Beverly L. Sloane. A Guide to Health Facilities, Personnel and Management, pp. pp. 16-20.

SUPPLIES AND MATERIALS:
Telephone directories, local and metropolitan

ENRICHMENT ACTIVITIES:
Visit local hospitals, nursing homes, public health agencies and voluntary health service agencies.

INFORMATION SHEET

Persons in the community require the following health care services:

1. emergency care
2. immunization for diseases found in Asia and Africa
3. screening for tuberculosis, cancer, diabetes, etc.
4. routine physical examination
5. dental care
6. eye glasses
7. birth control information
8. free medical care
9. statistics on births, deaths, incidence of disease
10. sanitary control of milk, water and food
11. information concerning and services for disease conditions, muscular dystrophy, mental retardation, epilepsy, birth defects
12. funds for health occupations education or for research in the delivery of health care

STUDY QUESTIONS

1. List, describe location, describe ownership and control and describe the services offered by the health care facilities in your local community.

2. List the health care facilities in the local community that will supply the services listed on the Information Sheet. Match the facility with the service offered.

3. Describe your activities in meeting the objectives of this unit and any other activities associated with this unit.

STUDENT RECORD

UNIT: #3 Health Care--Primitive to Modern

OBJECTIVE: **The student will be able to:**
Describe in writing important developments in the progress of health science from primitive medicine to modern health care.

CRITERIA OF ACCEPTANCE:
Student must score 75% or higher on the written test covering information in this unit. If the score is less than 75%, one or more of the learning alternatives should be repeated.

INSTRUCTIONAL CONCEPTS:

1. Negative and positive concepts have been carried over from health care given in the early history of man.
2. Examples of health care are found in the early history of man.
3. Health care in the Middle Ages and Renaissance was more religious than scientific.
4. Scientific developments in health care date from the 18th century.
5. The purposes of a modern health care facility are three-fold.

LEARNING ALTERNATIVES:

1. Observe presentation by the instructor of the basic concepts of the unit.
2. View the slide-tape segment of this unit.
3. Define terms listed in the vocabulary section and answer study questions in this unit.
4. List activities pertaining to this unit in this Record Book.

REFERENCES:

Bender, George A. and Robert A. Thom. Great Moments in Medicine.
French, Ruth M. The Dynamics of Health Care, second edition, pp. 11-13.
Sloane, Robert M. and Beverly L. Sloane. A Guide to Health Facilities, Personnel and Management, pp. 3-15.

SUPPLIES AND MATERIALS:
Information Sheet - 3, slide-tape presentation, Unit 3

ENRICHMENT ACTIVITIES:

Visit a museum featuring a section on the History of Medicine.

Write a research report on outstanding individuals in the history of medicine, nursing, bacteriology or chemistry, or health care for the poor.

INFORMATION SHEET

I. Primitive health care concepts
    A. Negative
        1. Sick person is shunned
        2. Illness is punishment for sins
        3. Disease or deformity makes a person unworthy.
        4. Illness interrupts the rhythm of life
    B. Positive
        1. Treat the total man: mind, spirit and body
        2. Care for the sick is participation in grace

II. Early developers of health care
    A. Greeks - Hippocrates, Galen, temple of Aesculapius
    B. Romans - military hospitals
    C. Arabs - Rahzes, pharmacists
    D. Indians - Susruta and plastic surgery
    E. Peruvians - trephining, guinea pigs, cocaine and quinine

III. Health care in the Middle Ages and Renaissance
    A. Christian hospitals
    B. Scientific and laboratory studies
    C. Dissection to learn anatomy

IV. Scientific developments since 18th century
    A. Edward Jenner - small pox vaccination
    B. Louis Pasteur - proof of germ theory
    C. Florence Nightingale - organization of military hospitals and public health agencies
    D. William Morton and John Warren - general anesthesia

V. Three purposes of modern health care facility
    A. Patient care
    B. Education of health care personnel
    C. Research

VOCABULARY

Aesculapius
anesthesia
auscultation
biochemical
caduceus
clinical observation
cocaine
diagnosis
dissection
ether
ethics
exudate
Galen
guinea pig
Hippocrates
hospital
immunization
Edward Jenner
medieval
microbes
Florence Nightingale
otoplasty
palpation
Paracelsus
Louis Pasteur
pasteurization
pharmacist
pharmacy
plastic surgery
polypharmacal

Unit 3 - 5

practitioner
quinine
renaissance
Rahzes
"sacred cow"
sedative
smallpox
spontaneous generation
sterilization
Susruta
trephining
vaccine
Vesalius
virulent

Unit 3 - 6

STUDY QUESTIONS

1. List four negative concepts regarding care of the sick that have carried over from ancient times to the present time.

2. List at least two concepts of modern health care that were present during an earlier age.

3. Describe at least two contributions to the development of health care made by the groups listed below.
   - Greeks

   - Romans

   - Arabs

   - Indians

   - Peruvians

4. Describe three important developments in the delivery of health care that occurred during the Middle Ages and Renaissance.

5. Describe the scientific contribution to health care made by the following individuals.
   - Edward Jenner

   - Louis Pasteur

   - Florence Nightingale

   - William Morton and John Warren

6. Describe the three principle purposes of a modern health care facility.

7. Describe the role of the health care assistant in health education.

STUDENT RECORD

UNIT: #4 Health Care Personnel

OBJECTIVES: The student will be able to:
List the names of the departments in an acute care general hospital and briefly describe the duties of the personnel in each department.

CRITERIA OF ACCEPTANCE:
The student must score 75% or higher on the written test covering information in this unit. If the score is less than 75%, one or more of the learning alternatives should be repeated.

INSTRUCTIONAL CONCEPTS:

1. Personnel involved in direct patient care may be classified at different levels: professional, technician, assistant and auxiliary.
2. Other hospital personnel are involved in patient services, business services, and care of the physical plant.

LEARNING ALTERNATIVES:

1. Observe presentation by the instructor of the basic concepts of this unit.
2. View the slide-tape segment of this unit.
3. Using the Information Sheet and a medical dictionary, answer the study questions and define the terms in the vocabulary.
4. List activities pertaining to this unit in this Record Book.

REFERENCES:

Caldwell, Esther. The Health Assistant, pp. 1-5.
French, Ruth M. The Dynamics of Health Care, second edition, pp. 67-81.
MacEachern, Malcolm T. Hospital Organization and Management, third edition, pp. 815-838.
Sloane, Robert M. and Beverly L..Sloane. A Guide to Health Facilities, Personnel and Management, pp. 23-101.

SUPPLIES AND MATERIALS:
Information Sheet - 4, slide-tape presentation, Unit 4

ENRICHMENT ACTIVITIES:
With other class members visit a modern general acute care hospital or a long-term government supported hospital.

Unit 4 - 2

Invite different health occupations personnel to visit the class and discuss their occupations.
Write a research paper on the variety of careers available in the health professions and health related technical occupations.

Unit 4 - 3

INFORMATION SHEET

I. Persons involved in direct patient care
  A. Professional - physicians, dentist, nurse, pharmacist, dietician, physical therapist, social worker
     Others - may be specialists, researchers or in newly developed professions
  B. Technicians - medical technologist, radiologic technician, respiratory therapist, dental hygeinist, operating room technician, central service technician, vocational nurse
     Others - electrocardiogram, electroencephalogram and cyto-technicians
  C. Assistants - persons employed to assist health professionals or health care technicians
  D. Auxiliary - volunteers who assist professionals and technicians in patient services

II. Patient services, business services and care of the physical plant
  A. Patient services
    1. Medical records
    2. Laundry and linen departments
    3. Housekeeping
    4. In-service education
  B. Business services
    1. Administrator
    2. Business office
    3. Purchasing
    4. Admitting and dismissal
    5. Personnel
    6. Public relations
  C. Physical plant
    1. Hospital engineer
    2. Maintenance department

Unit 4 - 4

VOCABULARY

anesthetist
critical care
evaluate
feces
massage
npo (non per os)
nutrition
personnel
physician
radiologist
respiratory therapy
specimen
sphygmomanometer
status
stethoscope
surgeon
treatment
urine
whirlpool

Unit 4 - 5

STUDY QUESTIONS

1. List and describe the function of the health care professionals involved in direct patient care in the hospital.

2. List and describe the duties of the health care technicians involved in direct patient care in the hospital.

3. List and describe the functions of the hospital departments involved in providing patient services in the hospital.

4. List and describe the functions of the hospital departments carrying out the business services of the hospital.

5. Describe the duties of the persons involved in maintaining the physical plant of the hospital.

6. List the two most common categories of voluntary workers found in a general hospital.

STUDENT RECORD

UNIT: #5 Internal Organization of a Health Care Facility or Agency

OBJECTIVES: The student will be able to:
Explain the principles of effective management of a health care facility.
Fill in the names of the departments in a blank example of an organizational chart of a general hospital.

CRITERIA OF ACCEPTANCE:
Student must score 75% or higher on the written test covering information in this unit. If the score is less than 75%, one or more of the learning alternatives should be repeated.

INSTRUCTIONAL CONCEPTS:
1. The organization of a general hospital begins with a board of trustees and leads directly to the administrator, the department heads and to the persons employed in each department. The medical staff and auxiliary workers cooperate with the board and hospital employees.
2. The governing board of a public health agency may be elected or may be appointed by the president, governor or local government administrator.
3. Effective organization is necessary for a health care facility or agency to make the most efficient use of the health care personnel employed in the facility.
4. Effective organization is necessary also for voluntary health service agencies and small health care professional offices.

LEARNING ALTERNATIVES:
1. Observe presentation by the instructor of the basic concepts of the unit.
2. View the slide-tape segment of this unit.
3. Using the Information Sheet and a medical dictionary, answer the study questions and define the terms in the vocabulary.
4. List activities pertaining to this unit in this Record Book.

REFERENCES:
French, Ruth M. _The Dynamics of Health Care_, second edition, pp. 55-64.
Hospital Research and Educational Trust. _Being a Ward Clerk_, Student Manual, chapter 1.

MacEachern, Malcolm T. Hospital Organization and Management, third edition, pp. 810-815.
Sloane, Robert M. and Beverly L. Sloane. A Guide to Health Facilities, Personnel and Management, pp. 105-117.
Stryker, Ruth P. The Hospital Ward Clerk, pp. 13-19.

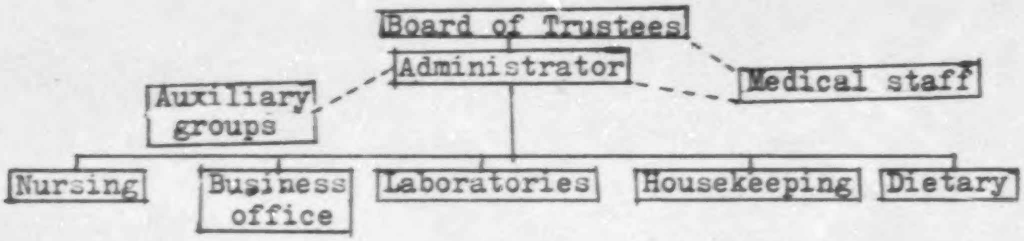
SUPPLIES AND MATERIALS:
Information Sheet - 5, slide-tape presentation, Unit 5

ENRICHMENT ACTIVITIES:
With others class members visit an acute care general hospital, long-term government supported hospital, a small clinic or a voluntary health care agency.
Write a research paper on the subject of organization of a health care facility.

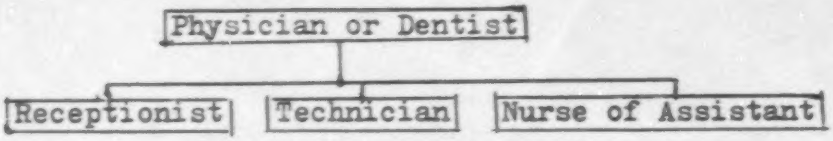
Unit 5 - 3

INFORMATION SHEET

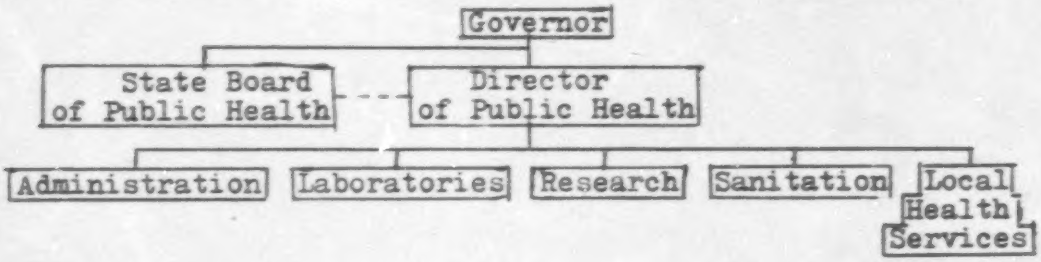
I. Example of a hospital organization


Board of Trustees
Administrator
Auxiliary groups
Medical staff
Nursing
Business office
Laboratories
Housekeeping
Dietary

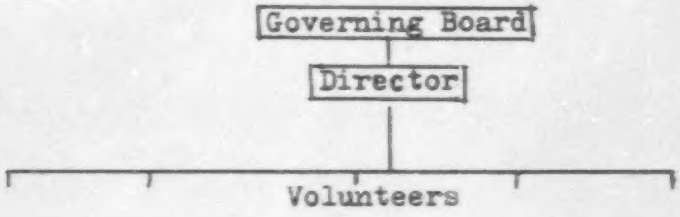
II. Example of a small professional office organization


Physician or Dentist
Receptionist
Technician
Nurse of Assistant

III. Example of a public health department organization


Governor
State Board of Public Health
Director of Public Health
Administration
Laboratories
Research
Sanitation
Local Health Services

IV. Example of a volunteer health service agency organization


Governing Board
Director
Volunteers

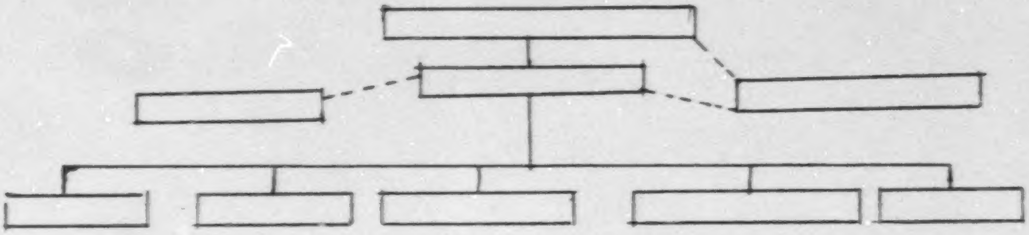
Unit 5 - 4

VOCABULARY

administrator
auxiliary
board of trustees
clinic
executive board
facility
internal
medical staff
organization
voluntary agency

STUDY QUESTIONS

1. Fill in the blanks with the names of the positions in a hospital organization in the diagram below.

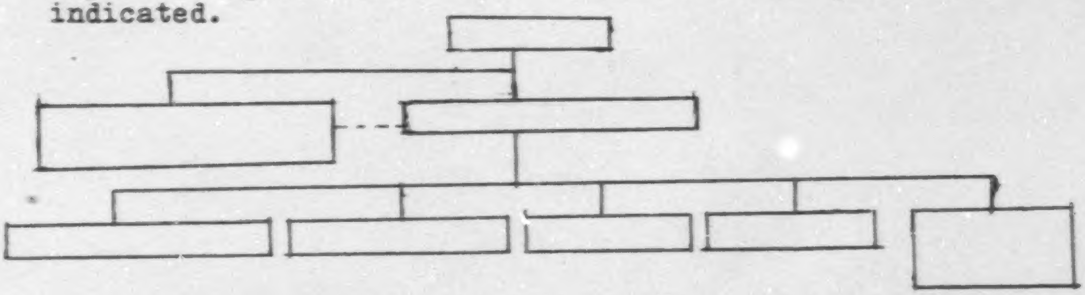


2. How is the governing board of a public health agency seleced?

3. What is meant by the phrase "internal organization"?

4. How does the organization of a small health care professional office, such as a dental or medical office differ from that of a hospital?

5. Fill in the blanks in the diagram of a state public health department given below with the names of the positions indicated.



6. Compare the organization of a voluntary health service agency with that of a hospital.

STUDENT RECORD

UNIT #6 Major Health Problems

OBJECTIVES: The student will be able to:

Write the definition of "health" as given by the World Health Organization.

List the four major advances in health care in the United States.

List four of the major environmental health problems.

List the four major health problems world-wide.

List three items under each of the six categories of basic human needs as described by Abrabham Maslow.

CRITERIA OF ACCEPTANCE:

Student must score 75% or higher on the written test covering information in this unit. If the score is less than 75%, one or more of the learning alternatives should be repeated.

INSTRUCTIONAL CONCEPTS:

1. Good health is a fundamental human right.
2. Major health advances in the United States have increased the life expectancy of the citizens of the U.S.A.
3. Major health problems remain to be solved.
4. Changes in the environment present health problems.
5. Good health is a need at each level of human development.

LEARNING ALTERNATIVES:

1. Observe presentation by the instructor of the basic concepts of this unit.
2. Using the Information Sheet and a medical dictionary, answer the study questions and define the terms in the vocabulary.
3. List activities pertaining to this unit in this Record Book.

REFERENCES:

Anderson, C. L. Health Principles and Practices, sixth edition, pp. 16-50.

French, Ruth M. The Dynamics of Health Care, second edition, pp. 1-9.

Fundamental Nursing Principles: Health and Its Meaning. Robert J. Brady Co.

Marshall, C. L. and D. Pearson. Dynamics of Health and Disease, pp. 15-87.

SUPPLIES AND MATERIALS:
Information Sheet - 6

ENRICHMENT ACTIVITIES:

1. With other class members visit a local public health center, seeing the departments of vital statistics, air and water pollution control, and communicable disease control.
2. Write a research report on national or world health problems after obtaining information from the World Health Organization, United State Public Health Service and/or the Communicable Disease Control Center, Atlanta, Georgia.

INFORMATION SHEET

I. Health, as defined by the World Health Organization is, "a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity".

II. Major advances in health in the United States leading to an increase in the life span are:
   - A. Control of communicable disease
   - B. Improved maternal and infant care
   - C. Improved nutrition
   - D. Improved methods of diagnosis and treatment

III. Major health problems still remain
   - A. Malnutrition
   - B. Population increase
   - C. Malaria
   - D. Chronic disabling diseases
     - 1. Physical - heart and vascular disease, cancer, diabetes, arthritis
     - 2. Mental - retardation, schizophrenia, alcoholism, drug addiction, suicide

IV. Environmental health problems
   - A. Air and water pollution
   - B. Radiation hazards
   - C. Accidents - automobile, home, work
   - D. New chemicals - industrial, housing, drugs, food, clothing

V. Basic human needs
   - A. Physiological needs
   - B. Safety needs
   - C. Love and belonging
   - D. Recognition and status
   - E. Achievement

Unit 6 - 4

VOCABULARY

alcoholism
arthritis
communicable
diabetes
disabling
disease
economic
environmental
infirmity
ionizing
malaria
malnutrition
maternal
physiological
pollution
radiation
schizophrenia
treatment
vascular
vital statistics

STUDY QUESTIONS

1. Give the definition of "health" as adopted by the World Health Organization.

2. List the major advances in health in the United States that have led to an increase in the life span.

3. List three of the major remaining health problems worldwide.

4. List four chronic disabling diseases remaining to be controlled.

5. List five mental health problems that remain uncontrolled.

6. Describe at least four environmental health problems needing the attention of health workers and all citizens.

7. List five of the major categories of human needs as described by Abraham Maslow.

STUDENT RECORD

UNIT: #7 Illness Interferes with Meeting Basic Human Needs

OBJECTIVES: The student will be able to:

Perceive himself as a person with basic human needs.
Perceive that illness interferes with meeting these basic needs.

CRITERIA OF ACCEPTANCE:

Student must score 75% or higher on the written test covering information in this unit. If the score is less than 75%, one or more of the learning alternatives should be repeated.

INSTRUCTIONAL CONCEPTS:

1. The health worker must understand that he has certain basic needs and that these needs must be met before he can effectively offer assistance to persons in need of health care.
2. The health worker must understand how illness and hospitalization interfere with a person's ability to meet his basic needs.

LEARNING ALTERNATIVES:

1. Observe presentation by the instructor of the basic concepts of this unit.
2. Using the Information Sheet, a medical dictionary and a regular dictionary, answer the study questions and define the terms listed in the vocabulary.
3. View the slide-tape segment of this unit.

REFERENCES:

Maslow, Abraham H. Motivation and Personality, second edition, pp. 35-58.
Maslow, A. H. Toward a Psychology of Being, second edition, pp. 21-43.
Milliken, Mary E. Understanding Human Behavior, pp. 27-67.
Mumford, Emily and James K. Skipper, Jr. Sociology in Hospital Care, pp. 48-70.

SUPPLIES AND MATERIALS:

Information Sheet - 7, slide-tape presentation, Unit 7

ENRICHMENT ACTIVITIES:

Using one of the references listed above, write a research paper on one of the following topics: self-actualization, social forces in hospitals, motivation or autonomy.

INFORMATION SHEET

I. Basic human needs
  A. Physiological needs - oxygen, water, food, sleep, rest, activity, sex
  B. Safety needs - security, stability, structure, limits, freedom from fear, anxiety and chaos
  C. Need for love and belonging - affection, contact, intimacy
  D. Need for self-esteem or recognition - independence, appreciation, self-respect, prestige, dominance
  E. Self-actualization or self-fulfillment

II. Illness interferes with meeting basic needs
  A. Disease - any condition which actually or potentially interferes with individual function
  B. Interference with: personal freedom, comfort, stability, physiological needs, affection, achievement

VOCABULARY

achievement

actualization

affection

anxiety

chaos

dependent

dominance

illness

independent

intimacy

physiological

potential

prestige

recognition

security

self-esteem

stability

structure

STUDY QUESTIONS

1. List at least six physiological needs of every human being.

2. Describe at least five "safety needs" of each individual.

3. Describe three ways in which a person may satisfy his need for love and belonging.

4. Describe at least three ways in which a person may satisfy his need for self-esteem.

5. Describe at least three ways in which a person may achieve self-fulfillment or self-actualization.

6. Describe at least five ways in which illness interferes with a person's meeting his basic needs.

STUDENT RECORD

UNIT: #8 The Health Worker as an Assistant in Meeting Basic Needs

OBJECTIVES: The student will be able to:

Perceive himself as a person offering assistance to those in need of health care.

CRITERIA OF ACCEPTANCE:

Student must score 75% or higher on the written test covering information in this unit. If the score is less than 75%, one or more of the learning alternatives should be repeated.

INSTRUCTIONAL CONCEPTS:

1. The patient has needs that may be met by the health assistant.
2. The patient sees the health assistant as playing a role.
3. The patient has certain expectations about his illness and is, in turn, faced with certain expectations from his family and the health assistant.

LEARNING ALTERNATIVES:

1. Observe presentation by the instructor on the basic concepts of this unit.
2. View the slide-tape segment of this unit.

REFERENCES:

French, Ruth M. The Dynamics of Health Care, second edition, pp. 1-21.

Milliken, Mary E. Understanding Human Behavior, pp. 138-163.

SUPPLIES AND MATERIALS:

Information Sheet - 8, slide-tape presentation, Unit 8

ENRICHMENT ACTIVITIES:

1. Spend one or more days observing in a health care facility to notice patient attitudes and expectations.
2. Hold discussions with former students in health occupations programs or students currently enrolled in advanced health occupations programs regardnng typical problems in human relations encountered by the beginning health worker.

INFORMATION SHEET

I. Five patient needs
  A. Empathy - not sympathy
  B. Safe environment
  C. Acceptance as a person of worth, regardless of social or economic background
  D. Prompt, skillful health care
  E. Ethical, honest health care

II. The assistant as seen by the patient
  A. Not as an individual
  B. Associated with pain and discomfort
  C. Associated with loss of freedom
  D. A person in a dominant role
  E. A person offering comfort and assistance

III. The "sick role"
  A. Patient is expected to:
    1. Get well
    2. Seek competent help
    2. Believe that science and medicine can cure
    4. Cooperate with technically competent authority
  B. Patient expects:
    1. Relief from responsibility
    2. Help from family and friends
    3. Recovery with the help of professionals

STUDY QUESTIONS

1. What is meant by the phrase "empathy--not sympathy" in taking care of patients?

2. How can the health assistant provide a safe environment for the patient?

3. What is meant by the term "acceptance as a person of worth, regardless of social or economic background" in giving patient care?

4. Describe how the health assistant can give prompt, skillful health care.

5. Describe how a health assistant can give a patient ethical, honest health care.

6. Describe five ways in which the patient sees the health assistant.

7. List three expectations that a person has when he is sick.

8. List at least four attitudes expected of a sick person by his family, friends and health care assistants.

9. Describe the role that you see for yourself in the delivery of health care.

APPENDIX D

ASSESSMENT INSTRUMENTS

FOREWORD

Test items included in this Evaluation Instrument were prepared especially for this project. Comprehensive evaluation of these test items was not included in this study; therefore, certain irregularities in test format and item types were not revised as a part of this project.

ORIENTATION TO THE HEALTH CARE DELIVERY SYSTEM

ASSESSMENT INSTRUMENT

PRETEST

Choose the best answer of those given. Use a no. 2 pencil to shade in the appropriate column on the answer sheet.

1. A group of health care facilities are to be classified according to type of patient treatment offered. Which one of the groups listed below can be classified in this way?

   a. American Cancer Society, Tuberculosis Association, Homestead Hospital
   b. psychiatric hospital, children's hospital, tuberculosis hospital
   c. nursing home, general hospital, city hospital
   d. county hospital, veteran's hospital, Baptist hospital
   e. Jackson Clinic, Orthopedic Associates, Kaiser Foundation

2. Jerry has been hearing voices and is unable to continue working on his job. His family doctor referred him to a psychiatrist who decided to hospitalize him. In which of the following health care facilities is Jerry likely to spend the longest period of time?

   a. general hospital
   b. extended care facility
   c. psychiatric hospital
   d. neurological clinic
   e. county hospital

3. Which of the following is the most accurate statement regarding short term and long term health care facilities?

   a. 80% of all hospitals are short term facilities.
   b. 95% of all hospital admissions are made into long term facilities.
   c. At any one time 20% of all hospitalized patients are in long term facilities.
   d. Patients in short term hospitals stay from 10=90 days.
   e. The patient having surgery is generally treated in a long term facility.

4. Richard is writing a research paper and needs information on the number of births and deaths in the state in 1970. Which of the agencies listed below should he contact for this information?

   a. State Department of Public Health
   b. World Health Organization
   c. City Health Department
   d. Communicable Disease Control Center
   e. United States Public Health Service

5. Jane is going on a three-week African tour and wants information on the leading cause of death in the Union of South Africa. Which of these public health agencies should she contact?

   a. World Health Organization
   b. City-County Health Department
   c. State Department of Public Health
   d. United States Public Health Service
   e. National Institute of Allergy and Infectious Diseases

6. Which of the agencies listed below is the federal agency that is the focal point for national support of biomedical research?

   a. Kaiser Foundation
   b. Carnegie Institute
   c. National Institutes of Health
   d. Ford Foundation
   e. Rockefeller Foundation

7. "A combination medical and hospital care program for persons over 65 years of age in the United States", describes which of the following?

   a. National League for Nursing
   b. United States Public Health Service
   c. National Institute of General Medical Sciences
   d. Medicare
   e. health care facility

8. Jenny is beginning school in the first grade this year and needs a smallpox immunization. Since her family cannot afford to pay for this service, to which of the agencies listed below should she go?

   a. general hospital
   b. physician in private practice
   c. school health center
   d. immunization clinic
   e. state health department

9. Following an automobile accident resulting in a head injury, Mr. and Mrs. Crawford's daughter, Joan, has trouble walking and talking and their family doctor has advised them to send her to an institution. Joan will probably go to:

   a. a neurological clinic
   b. school for the mentally retarded
   c. psychiatric hospital
   d. nursing home
   e. rehabilitation center

10. To which of the diseases listed below does the following definition refer, " an acute, contagious, fever-causing disease, the beginning symptoms of which are followed by a series of eruptions."

    a. leprosy
    b. tuberculosis
    c. venereal disease
    d. smallpox
    e. rheumatoid arthritis

11. The definition, "having rapid onset, severe symptoms and a short course", applies to which of the following terms?

    a. prevention
    b. acute
    c. disease
    d. illness
    e. chronic

12. The definition, "an institution for treatment of the sick and wounded", refers to which of the following?

    a. hospital
    b. institution
    c. clinic
    d. nursing home
    e. facility

Pretest - 4

Questions 13-18
The health care facilities listed below (a,b,c,d,e) are located in your community. In questions 13-18 you are faced with problems requiring the use of these health care facilities. Indicate which of the facilities listed (a,b,c,d,e) is best able to handle the health care problem.

a. city-county hospital
b. physician in private practice
c. private general hospital
d. American Cancer Society
e. Gold Leaf Nursing Home

13. A family is on vacation in your town. At 10:00 p.m. Joe, a six year old, cuts his hand on a piece of broken glass.

14. Mrs. Roberts is a widow receiving welfare payments. She needs to have a medical check-up because of her high blood pressure.

15. Mr. Jackson, a 70 year old man, has cancer and needs transportation to take him to the Radiation Center for therapy.

16. Mrs. Merritt, who lives alone, recently broke her hip. She is over the acute part of the incident but she is unable to take care of herself without help.

17. Your eighteen year old brother Alex is applying for entrance into college and needs to have a physical examination before his application is completed.

18. Your friend, Alice, has a special assignment in biology class and needs a film on the hazards of smoking cigarettes.

Questions 19-25
The health care facilities listed below (a,b,c,d,e) are not located in your community but you have the mailing address of each one. In questions 19-25 you are given situations which require the services of one of these agencies. Indicate on the answer sheet which of the agencies can best serve this need.

a. State Health Department
b. World Health Organization
c. Communicable Disease Center
d. American Heart Association
e. Kaiser Foundation

19. You have an assignment in history class to write a theme on the history of the battle to rid the world of malaria.

20. Several citizens in your community are interested in organizing a pre-paid health care plan.

21. You would like information regarding the number of cases of tuberculosis occurring in the United States in 1973.

22. The members of your health class would like information on the prevention of health attacks.

23. Your government teacher would like to show the class a film on the measures taken in this state to provide a safe water supply.

24. You would like information regarding the community services for promoting the health of mothers and children.

25. One or your classmates has been told that she needs open heart surgery but her family cannot afford to pay for this operation.

Questions 26-32
Certain ideas or concepts about the care of the sick have been carried into the present age from earlier eras. These concepts are described in the phrases below. (a. positive concept, b. negative concept, c. partially positive, partially negative, d. modern concept, e. result of advances in science) Questions 26-32 describe situations that exist today. Indicate on your answer sheet the phrase (a,b,c,d,e) that most accurately accounts for the situation described in the question.

a. positive concept
b. negative concept
c. partially positive, partially negative
d. modern concept
e. result of advances in science

26. Mr. Morris applied for a job as a design engineer but was rejected due to a previous back injury.

27. A majority of persons requiring bed rest for an illness are admitted to a hospital.

28. A person in the community with tuberculosis may live at home and receive treatment from the local health agency.

29. The candidate for governor in your state is forced to withdraw from the race when a check of his medical record revealed that he has been treated for a mental illness.

Pretest - 6

30. The occurrence of bubonic plague on a world-wide basis is rare.

31. Patients in the local nursing home conduct religious services every week but many of them are not visited by their family members.

32. A mother whose child is dying with leukemia states, "God is punishing me because I sinned in not wanting to have this child".

Select the best answer from the choices given below each question.

33. Which one of the Greeks listed below had temples of healing established in his name?

    a. Aesculapeus
    b. Hippocrates
    c. Galen
    d. Socrates
    e. Aristotle

34. In ancient India a famous surgeon performed an early form of otoplasty. Which phrase describes "otoplasty"

    a. reconstruction of the nose
    b. operation to repair a broken bone
    c. operation on the skull
    d. operation on a nerve
    e. operation on the ear to correct a defect

35. Evidence of extensive practice of opening the skulls of a living patient are found in Peru. This operation is known as

    a. neurosurgery
    b. trephining
    c. rhinoplasty
    d. mastoidectomy
    e. phlebotomy

36. Florence Nightingale, who created the respected profession of nursing, reorganized the British military medical system and established public health systems in Britain and India was affectionately known as the

    a. Lady of the Camellias
    b. Lady of the Lake
    c. Lady with the Lamp
    d. Lady Godiva
    e. Lady in Waiting

37. Among the early developers of health care, which of the following groups used many drugs and developed a specialist in the field called a pharmacist?

    a. Arabs
    b. Greeks
    c. Romans
    d. Peruvians
    e. Indians

38. The main purposes of modern health care facilities are patient care, research and

    a. dissection
    b. anesthesia
    c. sterilization
    d. recreation
    e. education

39. The definition, "process of examining by application of the hands to the external surface of the body to detect evidence of disease in the various organs", refers to

    a. diagnosis
    b. auscultation
    c. palpation
    d. trephining
    e. clinical observation

40. The definition, "the science of the chemical changes accompanying the vital functions of plants and animals", refers to

    a. pharmacology
    b. pasteurization
    c. polypharmical
    d. biochemical
    e. spontaneous generation

41. During the 19th century the substance used in the early attempts at anesthesia was

    a. cocaine
    b. quinine
    c. ether
    d. morphine
    e. nitrous oxide

42. The theory stating that disease causing organisms occur unaided or without apparent cause is known as

    a. spontaneous generation
    b. infection
    c. biochemical
    d. microbial
    e. virulence

43. The phrase, "a set of moral principles or values", refers to

    a. ethics
    b. caduceus
    c. saint
    d. sacred cow
    e. discipline

44. The scientist responsible for furnishing proof of the germ theory was

    a. Rhazes
    b. Vesalius
    c. Edward Jenner
    d. Louis Pasteur
    e. William Morton

45. The guinea pig was used in medical experiments and treatments dating back for over 1,000 years by the people in

    a. Persia
    b. Arabia
    c. Peru
    d. Greece
    e. Chinese

46. The practice of using dissection of human cadavers in the teaching of anatomy began during the

    a. 18th century
    b. 19th century
    c. pre-Christian era
    d. Renaissance
    e. 20th century

Questions 47-51
Hospital personnel spend varying amounts of time in giving direct patient care. Groups of health care personnel are listed (a,b,c,d,e). In questions 47-51 indicate on the answer sheet the amount of time spent in direct patient care that best describes the personnel listed.

a. housekeeping personnel, laundry personnel, medical record personnel
b. medical laboratory technologists, radiologic technologists, pharmacists
c. dietician, admission clerk, ward clerk
d. hospital administrator, personnel manager, maintenance engineer
e. nurses, physical therapists, respiratory therapists

47. over 50% of time spent in direct patient care

48. 10-50% of time spent in direct patient care

49. less than 1% of time spent in direct patient care

50. patient services, only occasional direct patient contact

51. no patient care, work with hospital physical plant or personnel

Questions 52-56
The different lengths of time are required for the education of the health care personnel listed below (a,b,c,d,e). In questions 52-56 the length of time required for the educational preparation of the groups of health care personnel are listed. Indicate on the answer sheet the group of personnel that can receive their education in the stated time.

a. physician, dentist, veterinarian
b. vocational nurse, dental assistant, operating room technician
c. registered nurse, radiologic technician, medical assistant
d. hospital administrator, medical record librarian, social worker
e. dental hygienist, respiratory therapists, medical laboratory technician

52. one year or less

53. two years or an Associate Degree

54. four years or a Baccalaureate Degree

55. five years or more with Master's Degree or equivalent

56. six years or more with a Doctoral degree or equivalent

Select the best answer from the choices given below each question.

57. Health care personnel who practice diagnosis and treatment by radiant energy are called

   a. respiratory therapists
   b. radiologists
   c. anesthetists
   d. pharmacists
   e. physical therapists

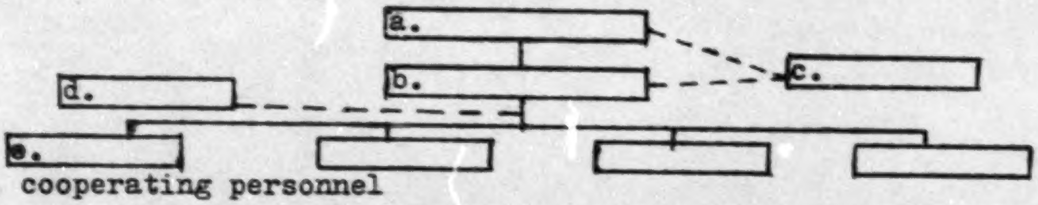
58. An instrument used in auscultation to convey to the ear the sounds produced in the body is called

   a. cardiac catheter
   b. bronchoscope
   c. ophthalmoscope
   d. stethoscope
   e. sphygmomanometer

59. The medical abbreviation "npo" means:

   a. at once
   b. nothing by mouth
   c. four times a day
   d. by mouth
   e. as needed

Questions 60-64
The organizational chart of a large health care facility contains several levels of personnel. These levels are indicated on the diagram below (a,b,c,d,e). To answer questions 60-64 indicate on the answer sheet where the listed personnel fit into the organizational diagram.



60. cooperating personnel

61. medical staff

62. department head or manager

62. department head or manager

63. administrator or executive

64. board of governors or board of trustees

Select the best answer from the choices given below each question.

65. The administrator or chief executive officer of a non-profit general hospital gains his office in which of the following ways?

    a. elected by a majority vote of the citizens of the community
    b. appointed by an independent board of trustees
    c. appointed by the elected chief executive of a political subdivision (governor, county judge, mayor)
    d. elected by a majority vote of the employees of the organization
    e. appointed by the medical staff

66. As a ward clerk employed in a large general hospital, with whom would you discuss a job-related problem?

    a. a member of the medical staff
    b. the Director of Nursing Service
    c. a member of the board of trustees
    d. the hospital administrator
    e. the head nurse

67. An orderly channel of communication providing a means for coordinating all patient services leads to:

    a. better patient care through the effective organization of personnel
    b. better coordination of medical and nursing care
    c. better public relations between the hospital and family of patients
    d. better coordination of administrative services of the hospital and medical care of the patients
    e. a chain of command similar to the U.S. Army in order to maintain discipline of the health care personnel

68. The definition, "a group of persons who maintain supervisory control of a health care institution", refers to

   a. board of trustees
   b. administrators
   c. volunteer workers
   d. physicians
   e. surgeons

69. "An agency for the carrying out of humanitarian ideas and the alleviation of certain disease conditions",is called

   a. hosptial
   b. public health agency
   c. volunteer health agency
   d. clinic
   e. health care facility

70. The "persons who give their services to a health care facility without pay", are called

   a. administrators
   b. department directors
   c. auxiliary
   d. board of trustees
   e. staff

71. A public health agency is best described as:

   a. an agency for the dispensing of health care treatment and health information maintained principally by volunteer workers
   b. an agency with the responsibility of maintaining the public health of a local community
   c. an institution in which persons are offered nursing care and custodial care
   d. a center for health care for those unable to pay for those health services
   e. an institution where the sick or injured are given medical or surgical care

Questions 72-76
In the United States a number of disease conditions have been controlled due to advances in health care. These are listed below (a,b,c,d,e). In questions 72-76 the reasons for the control of these diseases are listed. On your answer sheet indicate which of the disease conditions have been controlled by these factors (a,b,c,d or e).

a. toxemia of pregnancy, syphilis, premature birth
b. pellagra, beri-beri, scurvy
c. heart disease, birth defects, brain tumors
d. diphtheria, poliomyelitis, whooping cough
e. diabetes, epilepsy, high blood pressure

72. Advances in the control of communicable disease have decreased the incidence of these diseases

73. Improved maternal and child health have decreased the death rate from these conditions.

74. Improved nutrition has prevented the occurrance of these conditions.

75. Improved methods of diagnosis and treatment have increased the life expectancy of persons with these conditions.

76. Improved surgical techniques have permitted persons with these conditions to live longer.

Questions 77-82
The environmental health problems listed below (a,b,c,d,e) present hazards to our health. In questions 77-82 indicate on the answer sheet the best explanation for the conditions listed.

a. air pollution
b. water pollution
c. automobile accidents
d. new industrial chemicals
e. radiation hazards

77. The incidence of cancer of the thyroid is higher among persons who received radiation therapy for enlarged tonsils and adenoids as a child.

78. The river running through the local community no longer contains any fish which can be eaten.

79. The cost of automobile insurance has continued to increase over the past ten years.

80. The incidence of physical and mental deformities has increased in a Japanese village where industrial wastes are emptied into the river which supplies water for the village.

81. The incidence of black lung disease is most prevalent among underground coal miners.

82. The incidence of a rare type of cancer of the liver has increased among persons working in plants manufacturing polychloride plastics.

Select the best answer from the choices given below each question.

83. Major health problems still remaining to be controlled include: malaria, population increase, cancer and

    a. tuberculosis
    b. poliomyelitis
    c. smallpox
    d. malnutrition
    e. diphtheria

84. A "condition characterized by slow or limited intellectual or emotional development", describes:

    a. schizophrenia
    b. mental retardation
    c. alcoholism
    d. drug addiction
    e. neurosis

85. Which of the basic human needs is described as, " related to security, stability, structure and limits"?

    a. safety
    b. physiological
    c. recognition
    d. achievement
    e. belonging

86. The "inability to pursue an occupation because of physical or mental impairment", describes

    a. anxiety
    b. chaos
    c. physiological
    d. dependency
    e. disability

Questions 87-94
Each person has basic needs that must be met if that person is to achieve at the maximum level of his potential. These needs may be listed in the following categories (a,b,c,d,e). In questions 87-94 indicate on the answer sheet to which category of needs each group belongs.

a. physiological needs
b. safety needs
c. need for love and belonging
d. need for self-esteem and recognition
e. need for self-actualization or individual achievement

87. running for elective office, painting a picture

88. winning a mathmetics award in school, becoming an Eagle Scout

89. the need for warmth, shelter, sleep

90. need for law and order, freedom from fear

91. participating in a church picnic, taking swimming lessons at the YMCA

92. playing in a piano recital, winning an award for an essay on patriotism

93. having a birthday party, baby sitting with your sister

94. having teachers in school who place reasonable limits on your bahavior

Questions 95- 100
In questions 95-100 situations are described indicating that basic needs are not being met. Using the list of needs given above (a,b,c,d,e), indicate on your answer sheet which need is not being met in the situation described.

95. The family of Ali belongs to a nomadic tribe of North Africa who have not been able to find enough food for the members of the tribe during the past year.

96. Rowena's father is a traveling salesman and at home only on the week-ends. Her mother is an alcoholic and is frequently too drunk by the time Rowena comes home from school to know where she is or with whom she spend the evening.

97. Following the death of their parents in an automobile accident, the children in the family are sent to live with three different families.

98. Janet is a slow learner and has always been considered the "dummy" in her class in school.

99. Marvin lives in a low rent housing development in a large city and his apartment is frequently broken into by thieves.

100. Mr. Johnson had to drop out of school before finishing high school. He now must work at two uninteresting jobs in order to make enough money to support his family.

Questions 101-110
In questions 101-110 you are given statements regarding situations that you are likely to encounter as a health care assistant. To answer each of the questions indicate on the answer sheet whether you agree or disagree with the statements given.

a. strongly agree
b. agree
c. undecided
d. disagree
e. strongly disagree

101. The less a patient knows about his tests or treatment the better off he is.

102. A child who is a patient in the hospital is better off if his parents do not visit him and interfere with the treatments prescribed for him.

103. Many patients are not really sick but only pretend to be sick in order to gain attention.

104. It is possible to achieve a degree of self-achievement or self-satisfaction by working in one of the health care professions or vocations.

105. Social approval or equal status is given equally to all groups in the health field by the public.

106. Work is socially approved and rewarding when well done.

107. A patient in the hospital has many restrictions on his freedom.

108. A patient who is cranky and difficult to deal with does not deserve to get good nursing care.

109. Health care personnel should deal impersonally with patients and avoid learning about their problems.

110. The only responsibility that health care personnel have to the patient is to carry out the tests or treatments prescribed by the doctor or dentist.

Select the best answer from the choices given below each question.

111. The health care assistant is urged to supply for the patient, empathy, not sympathy. Which of the phrases below best describes "sympathy".

a. to "feel sorry" for a person
b. to go to the aid of one in distress
c. a relationship between persons wherein whatever affects one similarly affects the other
d. the capacity for participation in another's feelings or ideas
e. to be thoroughly familiar with the character of a person

112. The patient is entitled to a safe environment maintained by the health worker. Which of the situations listed below indicate an unsafe situation?

a. Side rails are put into place on all patients in a hospital who are given a sleeping pill at bedtime.
b. Instruments used in a dental office for examining a patient's mouth are sterilized before being used for another patient.
c. The rollers on the patient's bed are locked in place before the patient is asked to move from his bed onto a stretcher.
d. A patient who is waiting for a chest x-ray is left in view of an attendent with the safety strap in place on the wheelchair.
e. New employees are given no instructions as to the location of fire extinguishers or emergency exits.

113. The patient is entitled to prompt, skillful health care from the health assistant. In which of the situations listed below is this need being met?

   a. The laboratory technician efficiently performs a laboratory test, checks the results before recording them, then joins his co-workers for his scheduled lunch break.
   b. The electrocardiograph technician fails to standardize the machine before sending a record of the tracing to the doctor's office.
   c. In a hospital a patient's signal is left unanswered for five minutes.
   d. The physical therapy aide leaves a patient in cervical (neck) traction for 45 minutes when the prescribed time for this treatment was 20 minutes.
   e. The ward clerk takes a patient request for a nurse over the intercom and notifies the nurse assigned to this patient ten minutes later.

114. The patient is entitled to ethical, honest health care from the health assistant. Which of the situations described below illustrate this type of patient care.

   a. The nursing assistant tells her friends at school about the operation performed on one of her patients who is a teacher at the high school.
   b. The physical therapy aide fails to disinfect the whirlpool tub before leaving at the end of his duty assignment.
   c. The ward clerk orders the wrong treatment tray for a patient but fails to report the error to the supervisor.
   d. The x-ray assistant accidently leaves the film bin open exposing a box of x-ray film and promptly reports the incident to his supervisor.
   e. The respiratory therapy aide does not change the mouth piece on the respirator between patients.

Questions 115-120
It is the responsibility of the health worker to accept the patient as a person of worth, regardless of his social or economic background. In questions 115-120 statements are made regarding attitudes toward patients. Indicate on your answer sheet whether you agree or disagree with these statements.

   a. strongly agree
   b. agree
   c. undecided
   d. disagree
   e. strongly disagree

115. Mrs. Martin, a young housewife with three small children, comes in to see Dr. Parker frequently, stating that she is "always tired, has headaches and backaches". Charlotte, the medical assistant, says that Mrs. Massey is just a "crock" who has nothing wrong with her and is just wasting the time of the office personnel.

116. Mr. Carter is an independent plumber who has no income while he is hospitalized with a strained back. He is often irritable but the nursing team agrees that he still deserves prompt attention and skillful nursing care.

117. Mrs. Gonzales understands very little English. Christy, the nurse aide, says that Mrs. Gonzales is being stubborn and uncooperative because she does not follow Christy's instructions for taking her morning bath.

118. Mr. Baker only goes to the dentist when he has a severe toothache. It is obvious that he does not brush his teeth regularly. Sophie, the dental assistant realizes that Mr. Baker has a poor self image and is not showing disrespect for the dentist and dental assistant because he does not brush his teeth.

119. When Mrs. Dove, who is obviously wealthy, offers Debbie a tip for her helpful services, Debbie accepts, stating that Mrs. Dove can obviously afford to pay extra money for the services she receives.

120. John suffered a head injury in a motorcycle accident. Since he has been hospitalized he has used abusive and profane language in talking to the nurses and technicians, indicating that he is crude and does not appreciate the care he is receiving.

ASSESSMENT INSTRUMENT

POSTTEST

Unit #1 Health Care Facilities

Choose the best answer of those given.
Use a no. 2 pencil to shade in the appropriate column on the answer sheet.

1. A group of health care facilities are to be classified according to ownership. Which one of the groups listed below can be classified in this way?

   a. American Cancer Society, Tuberculosis Association, Homestead Maternity Hospital
   b. psychiatric hospital, children's hospital, tuberculosis hospital
   c. nursing home, general hospital, city hospital
   d. county hospital, veteran's hospital, Baptist Hospital
   e. Jackson Clinic, Orthopedic Associates, Kaiser Foundation

2. Robert fell from a diving board and suffered an injury to his spinal cord resulting in paralysis below the waist. In which of the following health care facilities is he likely to spend the longest period of time?

   a. general hospital
   b. extended care facility
   c. psychiatric hospital
   d. neurological clinic
   e. county hospital

3. Which of the following is the most accurate statement regarding short term and long term health care facilities?

   a. 20% of all hospitals are short term facilities.
   b. 95% of all hospital admissions are made into long term facilities.
   c. At any one time 62% of all hospitalized patients are in long term facilities.
   d. Patients in short term hospitals stay from 10-90 days.
   e. The patient having surgery is generally treated in a long term facility.

4. A student interested in conducting a research study on muscular dystrophy will be able to apply for funds from which of the following public health agencies?

   a. State Department of Public Health
   b. World Health Organization
   c. City Health Department
   d. Communicable Disease Control Center
   e. United States Public Health Service

5. Jane is going on a three-week Asiatic tour including a visit to Hong Kong and requires an immunization against cholera. Which of these public health agencies should she contact?

   a. World Health Organization
   b. City-County Health Department
   c. State Department of Public Health
   d. United States Public Health Service
   e. National Institute of Allergy and Infectious Diseases

6. With the emphasis on prevention of illness a pre-paid health plan provides medical, dental and hospital care for a group of persons who pay a stated sum of money each month. Which of the organizations listed below sponsor a pre-paid health plan?

   a. Carnegie Institute
   b. Ford Foundation
   c. Rockfeller Foundation
   d. Kaiser Foundation
   e. National Institutes of Health

7. The definition, "an institution operated under government or non-government ownership where people are treated for illness and/or the prevention of illness", applies to which of the following phrases?

   a. mental health clinic
   b. United States Public Health Service
   c. County Health Department
   d. general hospital
   e. health care facility

8. Jenny has a mole that needs to be removed surgically. To which of the listed health care facilities should she go first?

   a. general hospital
   b. city health department
   c. school health center
   d. physician in private practice
   e. immunization clinic

9. Following an automobile accident resulting in a head injury, Mr. and Mrs. Crawford's daughter, Joan, has trouble walking and talking and their family doctor has advised them to send her to an institution. Joan will probably go to:

   a. family planning center
   b. school for the mentally retarded
   c. psychiatric hospital
   d. nursing home
   e. rehabilitation center

10. To which of the diseases listed below does the following definition refer, "a chronic disease characterized by the formation of nodules or of macules that enlarge and spread, accompanied by loss of sensation with eventual paralysis, wasting of muscle, and production of deformities and mutilations"?

    a. leprosy
    b. tuberculosis
    c. venereal disease
    d. rheumatoid arthritis
    e. smallpox

11. The definition, "marked by long duration or frequent recurrence", applies to which of the following terms?

    a. prevention
    b. acute
    c. disease
    d. illness
    e. chronic

12. Drs. Jackson, Adams and Carter formed a partnership and combined their medical practice. Their practice, housed in a suite of offices, is called a:

    a. hospital
    b. institution
    c. clinic
    d. nursing home
    e. facility

ASSESSMENT INSTRUMENT

POSTTEST

Unit #2 Health Care Facilities in the Local Area

Select the best answer from the choices given below each question. Use a no. 2 pencil to shade in the appropriate column on the answer sheet.

Questions 13-18
The health care facilities listed below (a,b,c,d,e) are located in your community. In questions 13 through 18 you are faced with problems requiring the use of these health care facilities. Indicate which of the facilities listed (a,b,c,d,e) is best able to handle the health care problem.

a. city-county hospital
b. physician in private practice
c. private general hospital
d. American Cancer Society
e. Gold Leaf Nursing Home

13. You are on vacation in a seacoast town. At 2:00 a.m. Janet, your five-year-old sister, wakes up with a severe asthma attack.

14. Mrs. Roberts is a widow receiving welfare payments. She needs to have gall-bladder surgery.

15. You are interested in preparing a class presentation on "The Seven Danger Signs of Cancer".

16. Your grandmother, who lives alone, recently suffered a stroke. She is over the acute phase of the episode but still requires twenty-four hour observation, help with eating and rehabilitation therapy.

17. Your eight-year-old brother Alex wants to play pee-wee football but must have a physical examination before he is permitted to play.

18. Your friend, Alice, needs a film on abnormal cell growth to present a special assignment in biology class.

Unit 2 - 2

Questions 19-25
The health care facilities listed below (a,b,c,d,e) are not located in your community but you have the mailing address. In questions 19-25 you are given situations which require the services of one of these agencies. Indicate on the answer sheet which of the agencies can best serve this need.

a. State Health Department
b. World Health Organization
c. Communicable Disease Center
d. American Heart Association
e. Kaiser Foundation

19. You have an assignment in history class to write a theme on the major world-wide health problems during the past fifty years.

20. Mr. Harmon, your neighbor, is interested in enrolling in a pre-paid health care plan.

21. You would like information regarding the number of cases of of malaria occurring in the United States in 1973.

22. The members of your class would like to learn to give cardio-pulmonary resusitation and you have been assigned to find information on this subject.

23. Your government teacher would like to show the class a film regarding proper sanitary conditions for your local community.

24. You would like information comparing the birth rate and death rates for the four largest cities in the state.

25. One of your classmates has been diagnosed as having rheumatic fever and must take penicillen tablets regularly for several years. Her family needs financial help to obtain this medication.

ASSESSMENT INSTRUMENT

POSTTEST

Unit #3 Health Care—Primitive to Modern

Select the best answer from the choices given below each question. Use a no. 2 pencil to shade in the appropriate column on the answer sheet.

Questions 26–32
Certain ideas or concepts about the care of the sick have been carried into the present age from earlier eras. These concepts are described in the phrases below. (a. positive concept, b. negative concept, c. partially positive, partially negative, d. modern concept, e. result of advances in science) Questions 26 through 32 describe situations that exist today. Indicate on your answer sheet the phrase (a,b,c,d,e) that most accurately accounts for the situation described in the questions.

a. positive concept
b. negative concept
c. partially positive, partially negative
d. modern concept
e. result of advances in science

26. Mr. Morris would like to join the local fraternal lodge. He is judged unworthy to join since he has an artificial leg.

27. Over 90% of all babies born in the U.S.A. are born in a hospital.

28. A person in the community with a mental illness may live at home and receive treatment during the day at the local Mental Health Clinic.

29. The candidate for mayor in the local community is forced to withdraw from the race when a check of his medical record revealed that he has been treated for a mental illness.

30. There have been no cases of smallpox in the western hemisphere for the past five years.

31. Patients in the local tuberculosis sanitarium conduct religious services every week and have a regular physical activity period daily.

32. A family in your neighborhood is saddened by the sudden death of ten year old Alice. One of the neighbors states, "They must have been sinful and God is punishing them by taking their daughter from them".

Select the best answer from the choices given below each question.

33. Which one of the following Greeks is commonly called the "Father of Medicine"?

a. Aesculapeus
b. Hippocrates
c. Galen
d. Socrates
e. Aristotle

34. Susruta, famed Hindu surgeon, used a section of skin from the patient's cheek and attached it to the stump of the mutilated ear to perform an early form of what type of surgery?

a. orthopedic
b. neurosurgery
c. mastoid
d. rhinoplasty
e. otoplasty

35. Evidence of extensive practice of trephining is found in Peru, as well as, parts of Europe and Africa. This term means:

a. blood-letting
b. opening the skull of a living patient
c. application of leeches
d. cauterizing of wounds
e. administering a purgative

36. The "Lady with the Lamp" who created the respected profession of nursing, reorganized the British military medical system and established public health systems in Britian and India was

a. Queen Victoria
b. Clara Barton
c. Florence Nightingale
dd Frau Fliedner
e. Lady Godiva

37. The Arabs carried on the practice of medicine in the tradition of the Greeks and Romans using many drugs and creating a specialist in the field of drugs called a

   a. pharmacist
   b. pathologist
   c. physicist
   d. taxonomist
   e. internist

38. The main purposes of modern health care facilities are patient care, education of health care personnel, and

   a. dissection
   b. anesthesia
   c. sterilization
   d. recreation
   e. research

39. "The process of listening for sounds produced in some of the body cavities in order to detect or judge abnormal conditions", refers to

   a. palpation
   b. diagnosis
   c. auscultation
   d. trephining
   e. clinical observation

40. The definition, "a mixture of many drugs to be given at the same time", refers to

   a. biochemical
   b. pharmacy
   c. pasteurization
   d. polypharmical
   e. spontaneous generation

41. The medication that first became known for its effective treatment of malaria is called

   a. cocaine
   b. ether
   c. quinine
   d. anesthesia
   e. vaccine

42. The definition, "relative power of an organism to cause disease", refers to

    a. virulent
    b. spontaneous generation
    c. biochemical
    d. microbes
    e. exudate

43. The phrase, "a person or thing immune from criticism", refers to

    a. sacred cow
    b. ethics
    c. caduceus
    d. hospital
    e. saint

44. The scientist responsible for the development of a vaccine to be used against smallpox was

    a. Rhazes
    b. Louis Pasteur
    c. Vesalius
    d. Edward Jenner
    e. Hippocrates

45. An animal whose use in medical experiments and treatments dates back for over 2,000 years is the

    a. white rat
    b. rhesus monkey
    c. guinea pig
    d. dog
    e. chicken embryo

46. Health care developments of the Middle Ages and Renaissance include:

    a. antiseptic surgery
    b. use of anesthesia
    c. diagnosis by physical examination
    d. human dissection in teaching anatomy
    e. use of drugs in the treatment of disease

ASSESSMENT INSTRUMENT

POSTTEST

Unit #4 Health Care Personnel

Use a no. 2 pencil to shade in the appropriate column on the answer sheet.

Questions 47-51
Hospital personnel may be classified according to the amount of time they spend in giving direct patient care (a,b,c,d,e). In questions 47through 51indicate on the answer sheet the category that best describes each group of health care personnel.

a. over 50% of time spent in direct patient care
b. 10-50% of time spent in direct patient care
c. less than 1% of time spent in direct patient care
d. patient services, only occasional direct patient contact
e. no patient care, work with hospital physical plant

47. nurses, physical therapists, respiratory therapists

48. housekeeping personnel, laundry personnel, medical record personnel

49. medical laboratory technologists, radiologic technologists, pharmacists

50. dietician, admission clerk, ward clerk

51. hospital administrator, personnel manager, public relations personnel

Questions 52-57
The different lengths of time required for the education of health care personnel are listed below (a,b,c,d,e). In questions 52through 57 health care personnel are listed in groups. Indicate on the answer sheet the length of time required for educational preparation for each group of health care personnel.

a. one year or less
b. two years or an Associate Degree
c. Baccalaureate degree or four years
d. Master's degree or equivalent (five years or more)
e. Doctoral degree or equivalent (six years or more)

52. physician, dentist, veterinarian

53. vocational nurse, dental assistant, operating room technician

54. registered nurse, radiologic technician, medical assistant

55. hospital administrator, medical record librarian, social worker

56. dental hygienist, respiratory therapist, medical laboratory technician

57. pharmacist, optometrist, podiatrist

Select the best answer from the choices given below each question.

58. Health care personnel involved in the administration of oxygen and other gases in the treatment of pulmonary (lung) diseases are called:

   a. radiologists
   b. respiratory therapists
   c. anesthetists
   d. pharmacists
   e. physical therapists

59. An "instrument for measuring the arterial pressure" is called

   a. stethoscope
   b. ophthalmoscope
   c. pacemaker
   d. cardiac catheter
   e. sphygmomanometer

60. The medical abbreviation for "nothing by mouth" is

   a. stat
   b. npo
   c. ad lib
   d. qid
   e. po

ASSESSMENT INSTRUMENT

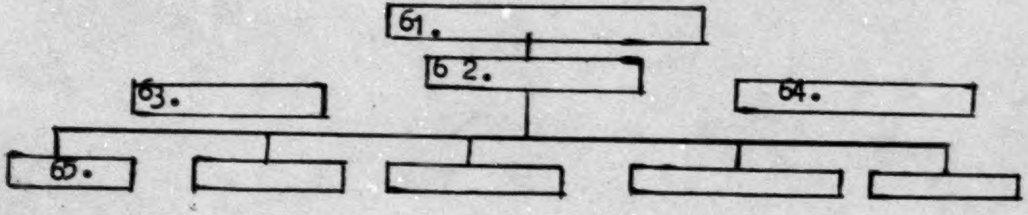
POSTTEST

Unit #5 Internal Organization of a Health Care Facility or Agency

Use a no. 2 pencil to shade in the appropriate column on the answer sheet.

Questions 61-65
The organizational chart of a large health care facility contains several levels of personnel. These are listed below (a,b,c,d,e). To answer questions 61-65 indicate the correct level for each of the numbered positions on the organizational chart given below.

a. cooperating personnel
b. staff personnel
c. department head or manager
d. administrator or executive
e. board of governors or board of trustees



Select the best answer from the choices given below each question.

66. The top officials or governing board of a public health department gain their offices in which of the following ways?

a. elected by a majority vote of the citizens of the community
b. appointed by the chief executive (president, governor, mayor)
c. appointed by an independent board of trustees
d. elected by a majority vote of the employees of the organization
e. appointed by the medical staff

67. As a nursing assistant in a large general hospital, with whom would you discuss a job-related problem?

a. a member of the medical staff
b. the Director of Nursing Service
c. a member of the board of trustees
d. the hospital administrator
e. the head nurse

68. How is better patient care developed through the effective organization of personnel in a health care institution?

a. A chain of command similar to the U.S. Army is needed to maintain discipline of the personnel
b. The medical staff is directly responsible to the hospital administrator
c. The general public needs someone to accept responsibility for patient welfare.
d. An orderly channel of communication provides a means for coordinating all patient services.
e. The nurses perform more effectieely when directed by the medical staff.

69. The definition, "one who superintends the conduct of an institution or agency", refers to:

a. administrator
b. physician
c. volunteer worker
d. member of the board of trustees
e. surgeon

70. A "center for physical examination and treatment of disease manned by two or more health professionals", is called a

a. hospital
b. public health agency
c. clinic
d. volunteer health agency
e. health care facility

71. The "personnel chiefly responsible for the internal operations of an institution or business" are called:

    a. auxiliary
    b. administrator
    c. department directors
    d. board of trustees
    e. staff

72. A volunteer health care agency is best described as:

    a. an agency with the responsibility of maintaining the public health of a local community
    b. an agency for the dispensing of health care treatment and health information maintained principally by volunteer workers
    c. an institution in which persons are offered nursing care and custodial care
    d. a center for health care for those unable to pay for the health services
    e. an institution where the sick or injured are given medical or surgical care

ASSESSMENT INSTRUMENT

POSTTEST

Unit #6 Major Health Problems

Use a no. 2 pencil to shade in the appropriate column on the answer sheet.

Questions 73-78
An increase in the life span of persons in the United States is due to the reasons listed belos (a,b,c,d,e). In questions 73-78 groups of disease conditions are listed that have been controlled due to these advances in health care. Indicate on the answer sheet which of the health care advances are responsible for the control of each group of disease conditions.

a. control of communicable disease
b. improved maternal and infant care
c. imporved nutrition
d. improved methods of diagnosis and treatment
e. improved surgical techniques

73. toxemia of pregnancy, syphilis, premature birth

74. pellegra, beri-beri, scurvy

75. heart disease, birth defects, brain tumors

76. diabetes, epilepsy, high blood pressure

77. smallpox, bubonic plague, tuberculosis

78. diphtheria, poliomyelitis, whooping cough

Questions 79-83
The environmental health problems listed below (a,b,c,d,e) present hazards to our health. In questions 79-83 indicate on the answer sheet the best explanation for the conditions listed.

a. air pollution
b. water pollution
c. automobile accidents
d. new industrial chemicals
e. radiation hazards

79. There has been an increase in a rare type of cancer of the liver among persons working in plants manufacturing poluchloride plastics.

80 . The incidence of emphysema (a disease condition of the lungs) has increased over the past ten years.

81. The incidence of physical and mental deformities has increased in a Japanese village where industrial wastes are emptied into the river which is the water supply for the village.

82. The cost of automobile insurance has continued to increase over the past ten years.

83 The river running through the local community no longer contains any fish which can be eaten.

Select the best answer from the choices given below each question.

84. Major health problems still remainin to be controlled include: malnutrition, population increase, cancer and

a. tuberculosis
b. poliomyelitis
c. smallpox
d. malaria
e. diphtheria

85. A "psychotic disorder characterized by loss of contact with the environment and by disintegration of the personality", describes:

a. mental retardation
b. schizophrenia
c. alcoholism
d. drug addiction
e. neurosis

86. Which of the basic human needs is described as: "related to the body and its needs"?

a. physiological
b. safety
c. recognition
d. achievement
e. belonging

Unit 6 - 3

87. Which category of disease is described as, "a disease condition which may be caused directly or indirectly from one individual to another"?

    a. environmental
    b. disabling
    c. vascular
    d. economic
    e. communicable

ASSESSMENT INSTRUMENT

POSTTEST

Unit #7 Illness Interferes with Meeting Basic Human Needs

Use a no. 2 pencil to shade in the appropriate column on the answer sheet.

Questions 88-95
Each person has basic needs that must be met if that person is to achieve at the maximum level of his potential. These needs may be listed in the following categories (a,b,c,d,e). In questions 88-95indicate on the answer sheet to which category of needs each group belongs.

a. physiological needs
b. safety needs
c. need for love and belonging
d. need for self-esteem and recognition
e. need for self-actualization or individual achievement

88. writing a poem, composing a song

89. graduating from high school, election as Secretary of Senior Class

90. the need for oxygen, food, water

91. buying a pair of shoes without consulting your parent

92. the need for sleep, rest, activity

93. participating in a family anniversary party

94. having a best friend with whom to discuss problems and successes

95. having parents who place resonable limits on your activities

Questions 96-101
In questions 96-101 situations are described indicating that basic needs are not being met. Using the list of needs given above (a,b,c,d,e), indicate on your answer sheet which need is not being met in the situation described.

96. Following the death of their parents in an automobile accident, the children in the family are sent to live in a children's home.

97. Janet is a slow learner and has always been considered the "dummy" in her class in school.

98. Marvin lives in a low rent housing development in a large city and his apartment is frequently broken into by thieves.

99. Mr. Johnson had to drop out of school before finishing high school. He now must work at two uninteresting jobs in order to make enough money to support his family.

100 Rowena's father is a traveling salesman and at home only on the week-ends. Her mother is an alcoholic and is frequently too drunk by the time Rowena comes home from school to know where she is or with whom she spends the rest of the evening.

101. The family of Ali belongs to a nomadic tribe of North Africa who have not been able to find enough food for the members of the tribe during the past year.

Questions 102-111
In questions 102-111 you are given statements regarding situations that you are likely to encounter as a health care assistant. To answer each of the questions indicate on the answer sheet whether you agree or disagree with the statements given.

a. strongly agree
b. agree
c. undecided
d. disagree
e. strongly disagree

102. A patient in the hospital has many restrictions on his freedom.

103. A patient who is cranky and difficult to deal with does not deserve to get good nursing care.

104. Health care personnel should deal impersonnally with patients and learn not to allow their true feelings to show.

105. The only responsibility that health care personnel have to the patient is to carry out the tests or treatments prescribed by the doctor or dentist.

106. The less a patient knows about his tests or treatment the better off he is.

107. A child who is a patient in the hospital is better off if his parents do not visit him and interfere with the treatments prescribed for him.

108. Many patients are not really sick but only pretend to be sick in order to gain attention.

109. It is possible to achieve a degree of self-actualization or self-satisfaction by working in one of the health care vocations or professions.

110. Social approval or equal status is given equally to all groups in the health field by both the public and fellow health workers.

111. Work is socially approved and rewarding when well done.

ASSESSMENT INSTRUMENT

POSTTEST

Unit #8 The Health Worker as an Assistant in Meeting Patient Needs

Select the best answer from the choices given below each question. Use a no. 2 pencil to shade in the appropriate column on the answer sheet.

112. The health care assistant is urged to supply for the patient, empathy, not sympathy. Which of the phrases below best describes "empathy"?

a. to "feel sorry" for a person
b. to go to the aid of one in distress
c. the capacity for participation in another's feelings or ideas
d. a relationship between persons wherein whatever affects one similarly affects the other

113. The patient is entitled to a safe environment maintained by the health worker. Which of the situations listed below indicate an unsafe situation?

a. All new employees are given information on what to do in case of fire and disaster.
b. Side rails are put into place an all patients in a hospital who are given a sleeping pill at bedtime.
c. Instruments used in a dental office for examining a patient's mouth are sterilized before being used for another patient.
d. The rollers on the patient's bed are locked in place before the patient is asked to move from his bed onto a stretcher.
e. A patient in a wheel chair is left unattended and without a safety strap outside the X-Ray department.

114. The patient is entitled to prompt, skillful health care from the health assistant. In which of the situations listed below is this need being met?

    a. The electrocardiograph technician carefully standardizes the machine before sending a record of the tracing to the doctor's office.
    b. In a hospital a patient's signal light is left unansered for five minutes.
    c. The laboratory technician hurriedly performs and records a laboratory test and without checking the results, goes to lunch.
    d. The physical therapy aide leaves a patient in cervical (neck) traction for 45 minutes when the prescribed time for the traction was 20 minutes.
    e. The ward clerk takes a patient request for a nurse over the intercom and notifies the nurse assigned to this patient ten minutes later.

115. The patient is entitled to ethical, honest health care from the health assistant. Which of the situations described below illustrate this type of patient care.

    a. The nursing assistant tells her friends at school about the operation performed on one of her patients who is a teacher at the high school.
    b. The x-ray assistant accidently leaves the film bin open and exposes a box of x-ray film but does not report the incident to his supervisor.
    c. The physical therapy aide fails to disinfect the whirlpool tub before leaving at the end of his duty assignment.
    d. The Ward Clerk promptly reports that she has mistakenly ordered the wrong treatment tray for a patient.
    e. The respiratory therapy aide does not change the mouth piece on the respirator between patients.

Questions 116-121
It is the responsibility of the health worker to accept the patient as a person of worth, regardless of his social or economic background. In questions 116 through 121 statements are made regarding attitudes toward patients. Indicate on your answer sheet whether you agree or disagree with these statements.

- a. strongly agree
- b. agree
- c. undecided
- d. disagree
- e. strongly disagree

116. John suffered a head injury in a motorcycle accident. Since he has been hospitalized he has used abusive and profane language in talking to the nurses and tehnnicians, indicating that he is crude and does not appreciate the care he is receiving.

117. When Mrs. Dove, who is obviously wealthy, offers Debbie a tip for her helpful services, Debbie accepts, stating that Mrs. Dove can obviously afford to pay extra money for the services she receives.

118. Mr. Baker only goes to the dentist when he has a severe toothache. It is obvious that he does not brush his teeth regularly. Sophie, the dental assistant realizes that Mr. Baker has a poor self image and is not showing disrespect for the dentist and dental assistant because he does not brush his teeth.

119. Mrs. Gonzales understands very little English. Christy, the nurse aide, says that Mrs. Gonzales is being stubborn and uncooperative because she does not follow Christy's instructions for taking her morning bath.

120. Mr. Carter is an independent plumber who has no income while he is hospitalized with a strained back. He is often irritable but the nursing team agrees that he still deserves prompt attention and skillful nursing care.

121. Mrs. Massey, a young housewife with three small children, comes in to see Dr. Parker frequently, stating that she is "always tired, has headaches and backaches". Charlotte, the medical assistant, says that Mrs. Massey is just a "crock" who has nothing wrong with her and is just wasting the time of the office personnel.

ASSESSMENT INSTRUMENT

SCORING KEY

PRETEST

1. b
2. c
3. a
4. a
5. a
6. c
7. d
8. d
9. e
10. d
11. b
12. a
13. a
14. a
15. d
16. e
17. b
18. d
19. b
20. e
21. c
22. d
23. a
24. a
25. d
26. b
27. d
28. e
29. b
30. e
31. c
32. b
33. a
34. e
35. b
36. c
37. a
38. e
39. c
40. d
41. c
42. a
43. a
44. d
45. c
46. d
47. e
48. b
49. c
50. a
51. d
52. b
53. c
54. e
55. d
56. a
57. b
58. d
59. b
60. d
61. c
62. e
63. b
64. a
65. b
66. e
67. a
68. a
69. c
70. c
71. b
72. d
73. a
74. b
75. e
76. c
77. e
78. b
79. c
80. b
81. a
82. d
83. d
84. b
85. a
86. e
87. e
88. d
89. a
90. b
91. c
92. d
93. c
94. b
95. a
96. b
97. c
98. d
99. b
100. e
101. d
102. e
103. d
104. a
105. d
106. b
107. b
108. e
109. d
110. e
111. c
112. e
113. a
114. d
115. e
116. b
117. d
118. b
119. e
120. e

POSTTEST

1. d
2. b
3. c
4. e
5. b
6. d
7. e
8. d
9. e
10. a.
11. e
12. c
13. a
14. a
15. d
16. e
17. b
18. d
19. b
20. e
21. c
22. d
23. a
24. a
25. d
26. b
27. d
28. d
29. b
30. e
31. a
32. b
33. b
34. e
35. b
36. c
37. a
38. e
39. c
40. d
41. c
42. a
43. a
44. d
45. c
46. d
47. a
48. d
49. b
50. c
51. d
52. e
53. a
54. b
55. d
56. c
57. d
58. b
59. e
60. b
61. e
62. d
63. a
64. a
65. c
66. b
67. e
68. d
69. a
70. c
71. c
72. b
73. b
74. c
75. e
76. d
77. a
78. a
79. d
80. a
81. b
82. c
83. b
84. d
85. b
86. a
87. e
88. e
89. d
90. a
91. d
92. a
93. c
94. c
95. b
96. c
97. d
98. b
99. e
100. b
101. a
102. a
103. e
104. d
105. e
106. d
107. e
108. d
109. b
110. d
111. b
112. c
113. e
114. a
115. d
116. d
117. e
118. b
119. e
120. a
121. e

APPENDIX E

RESEARCH FORMS

GROUPS PARTICIPATING IN PILOT TEST

Group	High School	School District	City	HOCT Teacher-Coordinator
Experimental	Alief	Alief-Hastings	Alief	Gayle Luedecke
	Spring Branch	Spring Branch	Houston	Dolores Beller
	R. L. Turner	Carrollton-Farmer's Branch	Carrollton	Hattie McDonald
	Denton	Denton	Denton	Carolyn Jannson
Control	Richland	Birdville	Fort Worth	Concha Jones
	McCallum	Austin	Austin	Willine Park
	Memorial	Edgewood	San Antonio	Violet Curtis
	Jefferson	San Antonio	San Antonio	Dee Ann Havely

TO: Coordinator or Instructor Addressed

FROM: Catherine Junge

DATE: September 10, 1974

I would like to request your cooperation in testing a curriculum module developed for use in Secondary Health Occupations Education programs in Texas. The module to be tested is titled: "Introduction to the Health Care Delivery System." A portion of this module was developed by coordinators during the Secondary HOE In-Service Workshops in 1973 and 1974.

In order to set up a valid test for the module, I need certain information from each of you. Will you please circle the appropriate answer to the questions listed below and return the questionnaire to me no later than September 20. I have enclosed a stamped, self-addressed envelope for your convenience in replying to the questionnaire.

Some of you will be requested at a later date to participate further in the testing of this module either by teaching the module or by giving the posttest to your students. Please indicate in the appropriate space if you are willing to participate in the project.

I include the following behavioral objectives in my HOCT curriculum.

The student will be able to:

Yes No 1. define "health care facility" and be able to classify and describe several types of health care institutions according to type of service offered, ownership, and length of patient stay.

Yes No 2. list the names of the health care facilities in the local area and classify them according to services offered, ownership, and length of patient stay.

Yes No 3. describe in writing the important developments in the history of health care from the primitive to modern times.

Yes No 4. list the names of the different departments in an acute care general hospital and briefly describe the duties of the personnel in these departments.

Yes No 5. briefly describe the internal organization of a large and a small health care facility.

Yes No 6. list and give a brief description of the major health problems in the United States and the major health problems world-wide.

Yes No 7. list and describe human basic needs as outlined by Abraham Maslow and give examples of how illness interferes with a person meeting his basic needs.

Yes No 8. perceive himself as a person offering assistance to those in need of health care.

Yes No I will have completed the units listed above by October 1, 1974.

Yes No I am willing to participate in testing the module between October 1 and October 20, 1974.

____
Coordinator of Instructor

____
Program or Class

____
School

____
Address of School

TO: Coordinator Addressed

FROM: Catherine Junge

SUBJECT: Pilot testing of module, "Orientation to the Health Care Delivery System"

DATE: April 1, 1975

Thank you for agreeing to participate in testing the module, "Orientation to the Health Care Delivery System." You have been chosen by random selection to participate in the experimental group.

You will receive the module including: Teacher Implementation Plans, Student Record Books, Student Assessment Instrument, pretests, overhead transparencies, and slide-tape presentations. You will also receive a Module Evaluation Form. The units should arrive on approximately April 15. The module contains eight (8) units and you should use your own judgement as to the number of class hours needed to complete the module. However, I would like to have the answer sheets returned to me on or before May 15.

The Student Assessment Instruments contain pretest and posttest questions covering each unit. Answer sheets are provided for each student. Return only the answer sheets, along with the evaluation forms. The rest of the module is yours to keep.

To indicate that you are still willing to participate in the testing program, please fill out and return the bottom section of this sheet, so that I can complete my final list of participating classes.

Yes No I am willing to participate in testing the module, "Orientation to the Health Care Delivery System" between

Name ____________________

No. of Students in Your Program ____________________

Name of School ____________________

Address of School ____________________

(A self-addressed, stamped envelope is enclosed for your convenience.)

INSTRUCTIONS FOR PILOT TESTING OF THE MODULE

"ORIENTATION TO THE HEALTH CARE DELIVERY SYSTEM"

A. Contents of the packet

The packet contains the following: one set of Teacher's Implementation Plans, Student Record Books for each student in your class, Assessment Instruments, eight units, both pretest and posttest for each student in your class, scoring sheets for the pretests and posttests, one Teacher Evaluation Form for each unit, one Module Evaluation Form, six sets of slides, seven sets of transparencies and one audio tape cassette.

B. Instructions for use

Preview the material in the Teacher Implementation Plans and the Student Record Book, along with the slides, transparencies, and audio tape.

Notice that the tape cassette contains Units 1 and 3 on Side 1 and Units 4, 5, 7, and 8 on Side 2. Each unit begins with an introduction and is separated by a blank section on the tape. This will facilitate locating the beginning of each unit in the event you are unable to leave the tape cassette in place for the entire series.

Ask the student NOT to mark in the Student Record Books so that the books may be used again. Please comment as to whether you think that learning would be enhanced if each student were allowed to keep the Record Book permanently. In this situation the instructor would order a new set of Record Books for each year's class.

The pretest Assessment Instruments, all eight units, should be administered before beginning instruction on the units. Mail the pretest scoring sheets to me as soon as they are completed. I will send you the results of the tests.

The posttest Assessment Instruments should be administered at the end of each instructional unit. Mail the scoring sheets to me after you have completed the unit, or not later than May 20. The results of these tests will also be mailed to you.

Fill out the Teacher Evaluation Sheet for each individual unit as each unit is completed. Fill out the Module Evaluation Sheet after all units have been completed.

You may retain all of the teaching materials used with this module. Please return all tests and scoring sheets.

Read the Instructions for Using Embedded Figures Test. Take the letter regarding the EFT to your school counselor and cooperate in setting up and taking this test. Return all materials involved in the Embedded Figures Test to me.

Your cooperation in testing this module is appreciated.

INSTRUCTIONS FOR USING EMBEDDED FIGURES TEST

As an adjunct to pilot testing of the module, "Orientation to the Health Care Delivery System," students and teachers are asked to take the Embedded Figures Test, developed by Herman A. Witkin. This test, designed originally for research in cognitive functioning and cognitive styles, has been used extensively in assessment studies which relate performance on the Embedded Figures Test to analytic ability in other tasks.

The use of this test will serve to point out any direct relationship between the student's success in using the module with his cognitive style and/or the cognitive style of the teacher, as indicated by the EFT. This information should be of value to the teacher in planning future instructional programs.

A letter to the counselor of your school with instructions on giving the Embedded Figures Test is included in this packet.

Dear Counselor:

Mr. , the Health Occupations Cooperative Training coordinator at High School, has agreed to participate in the pilot testing of an instructional module entitled, "Orientation to the Health Care Delivery System." This unit was developed in part by HOCT coordinators at their 1974 Summer In-service Workshop.

As an adjunct to this pilot study, a test of the cognitive style of students and teachers involved in the testing program is considered desirable. As you know, the modular approach is not equally effective for all students. In order to determine the effect of cognitive style on the amount of learning that occurs when using the modular approach, the students and teachers are asked to take a test designed to determine their cognitive style. The proposed test, Embedded Figures Test, developed by Herman A. Witkin, is designed to measure whether the student is "field-dependent" or field-independent" in his style of learning. This test, designed originally for research in cognitive functioning and cognitive styles, has been used extensively in assessment studies which relate performance on the Embedded Figures Test to analytic ability in other tasks.

Your cooperation is needed to administer this test to the students and coordinator involved in the testing program. The Group Embedded Figures Test is the test selected for this group. Subjects find one of eight simple figures in the 18 complex designs, marking them in black lead pencil. To test the group as economically as possible, only 33% of the students need to be given the EFT. Students may be selected by taking every third name from the current gradebook of the coordinator. The test may be administered at your convenience. However, I need the complete results in my office by May 15, 1975. The test may be given to the students and coordinator as a group.

SUMMARY:

Supplies needed: stop watch, black lead pencils
Supplies furnished: manual for Embedded Figures Test, test booklets, envelope for returning materials to the investigator
Scoring: done by the investigator

Thank you for your cooperation in this matter.

INSTRUCTIONS FOR CONTROL GROUP

TO: .Coordinator Addressed

FROM: Catherine Junge

SUBJECT: Pilot testing of module, "Orientation to the Health Care Delivery System"

DATE: April 15, 1975

Thank you for agreeing to participate in testing the module, "Orientation to the Health Care Delivery System." You have been chosen by random selection to participate in the control group. Under separate cover you will receive the materials needed for your group. Contents of the packet and instructions for using the answer sheets are given below.

A. Contents of the packet
    1. Assessment Instruments (Posttest)
       one for each student enrolled in class
    2. Answer sheets (IBM)
       one for each student enrolled in class
    3. Embedded Figures Test
       one for instructor; one for every third student in class
    4. Envelope for returning answer sheets and EFT materials

B. Instructions for marking answer sheets
    1. Coordinator, please have your students renumber the posttest questions according to the example given in the set labeled "number Sample." Caution them to not make any extra marks on the answer sheets, since this will cause those sheets to be discarded.
    2. Have each student indicate on the answer sheet the following information:
       Years in the HOCT program (one or two)
       Employed in a health occupation (yes or no)
    3. Please return the IBM answer sheets and EFT materials to me on or before May 15, 1975.

TEACHER EVALUATION OF INSTRUCTIONAL MODULE

"ORIENTATION TO THE HEALTH CARE DELIVERY SYSTEM"

Each item is to be rated on a scale from 1-7. Circle the number which best indicates your appraisal in the area evaluated. Use the back of this rating sheet for additional comments.

1. The instructional concepts were
   too complex 1 2 3 4 adequate 5 6 7 too simple
2. The number of concepts in this unit were
   too many 1 2 3 4 adequate 5 6 7 too few
3. Sequencing of the concepts was
   excellent 1 2 3 4 5 6 7 poor
4. Was there ample material supplied in the text to cover the concepts?
   too much 1 2 3 4 adequate 5 6 7 too little
5. The terminology used in the unit was
   too complex 1 2 3 4 5 6 7 too simple
6. In terms of student learning, have the objectives been met?
   yes 1 2 3 4 5 6 7 no
7. Was the module easy for the student to use?
   too simple 1 2 3 4 5 6 7 difficult
8. Was the module easy for the teacher to use?
   too simple 1 2 3 4 5 6 7 difficult
9. The interest of the students in the module was
   high 1 2 3 4 5 6 7 bored
10. The visual quality of the slides used was?
    excellent 1 2 3 4 adequate 5 6 7 poor
11. How well did the slides support and illustrate the concepts?
    excellent 1 2 3 4 adequate 5 6 7 poor
12. To what degree did the audio portion enhance the visual presentation?
    excellent 1 2 3 4 adequate 5 6 7 poor
13. The audio quality of the audio tape was
    excellent 1 2 3 4 adequate 5 6 7 poor

14. How much of the student's classroom time was used for this unit?
15 mins.   30 mins.   1 hr.   1 1/2 hrs.   2 hrs.   3 hrs.

15. How much time (in and out of the classroom) did the average student spend on this unit?
15 mins.   30 mins.   1 hr.   1 1/2 hrs.   2 hrs.   3 hrs.

16. What percentage of the total time available during the school year for this course should be spent on this unit?
less than 1%   1%   2%   3%   4%   5%

TEACHER EVALUATION OF THE MODULAR APPROACH TO

"ORIENTATION TO THE HEALTH CARE DELIVERY SYSTEM"

In responding to the items below consider the total effect of the eight units as presented with the modular approach.

Each item is to be rated on a scale from 1-7. Circle the number which best indicates your appraisal in the area evaluated. Use the back of this rating sheet for additional comments.

1. How do you rate the overall value of the module to the health occupations education curriculum?
   very valuable 1 2 3 4 5 6 7 little value

2. Would you add any key concepts or delete any key concepts. Please comment.
   add 1 2 3 4 5 6 7 delete

3. How much classroom time was given to this module?
   less than 4 hrs. 4 hrs. 5 hrs. 6 hrs. 7 hrs. 8 hrs. or more

4. What percentage of the total classroom time available in the HOCT program should be spent on this module?
   1% 2% 5% 10% 15% 20%

5. How effective do you consider the modular approach to learning?
   effective 1 2 3 4 5 6 7 poor

6. If you were free to choose, would you use this unit again?
   Yes no

BEST COPY AVAILABLE

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